

The living specimen dredged at Sydney Heads is only five lines long, those from New Caledonia are very fine and found in great variety, both in deep water and on sandy mud-flats at low water.

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NOTE ON ONISCIA PONDEROSA, WITH ITS LOCALITY.

BY J. BRAZIER, C.M.Z.S., ETC.

ONISCIA PONDEROSA.

*Oniscia ponderosa*, Hanley, Proc. Zool. Soc., 1858, p. 255, pl. xlii., fig. 9—10.

*Hab.* Penirihonen, north coast of New Caledonia, (*R. C. Rossiter*).

When it was described by Mr. Hanley the locality of this very rare and beautiful species was unknown. The specimen before me I consider the grandest of the genus, and it is the first found in Australian Seas; much remains to be done in New Caledonia with the dredge.

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ON THE AUSTRALIAN BRACHYURA OXYRHYNCHA.

BY WILLIAM A. HASWELL, M.A., B.Sc.

[Plates 25—27.]

Descriptions of several species of Australian Maioid Brachyura occur in the works of Milne-Edwards, and the earlier writers on the subject, and a few have more recently been described by Dana, Streets, A. Milne-Edwards, Hess and Miers. These amount in all to nineteen species, belonging to thirteen genera. I have now to add thirty-seven species (of which seventeen appear to be new to science), thus bringing up the total number to fifty-six species, belonging to twenty-seven different genera. The greater number of the new species are contained in the fine collection

obtained by the Hon. William Macleay on the eastern coast and in Torres Straits; the remainder are in the collection of the Australian Museum, or were obtained by myself at Port Denison.

The arrangement followed is the modification of Prof. Dana's classification of the group proposed by Mr. E. J. Miers.\*

FAM. I. *INACHIDÆ*.

Genus *STENORHYNCHUS*, Lamarck.

1. *Stenorhynchus curvirostris*, *A. Milne-Edwards*.

*Stenorhynchus curvirostris*, *A. Milne-Edwards*, *Journal des Museum, Godeffroy*, Band i, Hft. iv., p. 75.

*Hab.* Bass' Straits, (Godeffroy Museum).

2. *Stenorhynchus brevirostris*, *mihi*. Plate xxvii. fig. 5.

*Stenorhynchus brevirostris*, *Haswell*, *Proc. Linn. Soc., N.S.W.*, vol. iii., p. 408.

*Hab.* Port Jackson, Port Denison.

3. *Stenorhynchus fissifrons*, *mihi*.

*Stenorhynchus fissifrons*, *Haswell*, *Proc. Linn. Soc. N.S.W.*, vol. iii., p. 409.

Gastric region of the carapace armed with a short, blunt spine and two tubercles placed in the form of a triangle, the base being directed forwards, and the apex formed by the spine; cardiac region with a single short thick spine; branchial regions each with three rounded, larger, and three smaller, pointed tubercles and a few rounded granulations; hepatic regions elevated, ornamented with two or three pointed tubercles. Rostral spines short, acute; frontal furrow extending as far back as the line joining the posterior borders of the orbits; upper orbital border armed with three small, acute teeth on its outer surface; wrist with two tubercles on its outer surface, and two small teeth on its inferior border; hand with a row of short acute spines on its

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\* *Proc. Linn. Soc. Zool.*, vol. xiv., pp. 634—673.

superior and inferior borders, the inner surface smooth, the outer surface obscurely tuberculated towards the middle.

*Hab.* Auckland (Macleay Museum); Port Jackson (Australian Museum).

Genus *ACHÆUS*, Leach.

4. *Achæus breviceps*, *sp. nov.*

*Female.* Carapace smooth, hairy at the sides; regions well-defined; cardiac region prominent; a low angular elevation on the hepatic region. Rostrum very short. Frontal region very short, with a well-marked mesial furrow. Eye peduncles rather long, as long as the front. Arm trigonal; wrist smooth, rounded; palm compressed and longitudinally ridged; fingers as long as the palm, slightly incurved, acute, toothed, meeting throughout the entire length of their inner edges. Second pair of limbs three times as long as the post-frontal region of the carapace; dactylos filiform. Following pairs of limbs decreasing in length backwards; dactyli falciform. Length  $\frac{1}{4}$  in.

*Hab.* Port Jackson.

Genus *CAMPOSCIA*, Latr.

5. *Camposcia retusa*, *Latr.*

*Camposcia retusa*, *Latr. R. An.* 2e éd., t. iv., p. 60; *Gnérin, Icon. Crust.*, pl. ix., fig. 1; *Milne-Edw., Hist. Nat. Crust.*, tome i., p. 283, pl. xv., figs. 15, 16; *A. Milne-Edwards, Nouv. Arch. du Mus.*, t. viii., p. 255, (1872).

*Hab.* Seas of Asia; New Caledonia (Paris Museum); Cape Grenville ("Chevert" Exped.); Port Denison (Australian Museum).

Genus *ONCINOPUS*, De Haan.

6. *Oncinopus angulatus*, *sp. nov.*

Carapace triangular, much depressed behind. Gastric region elevated; cardiac region slightly elevated in the centre, with two

rounded tubercles; hepatic regions with a rounded transverse ridge. Front deeply incised. Lateral border with a low angular elevation behind the eye. Anterior limbs slightly longer than the carapace; hand dilated in the male; second pair of legs about twice as long as the carapace, the meros, carpus and propodos stout; posterior legs more slender than the second pair, about one and a-half times the length of the carapace. Length three-fifths of an inch.

*Hab.* Port Jackson (very common); Cape Grenville ("Chevert" Exped.)

This species differs from its very near ally *O. neptumus* of Adams and White, which it closely resembles in the form and proportions of the limbs, chiefly in having the front rather less deeply incised, and in the presence of a slight projection on the lateral border of the carapace.

#### Genus HALIMUS, Latr.

##### 7. *Halimus tumidus*, Dana.

*Halimus tumidus*, Dana, *U.S. Explor. Exped., Crust.*, I., p. 165; Hess, *Beiträge zur Kenntniss der Decapoden Krebse Ost Australiens, Archiv für Nat.* 1865, p. 130.

*Hab.* Sydney (Dana; Australian Museum).

##### 8. *Halimus spinosus*, Hess.

*Halimus spinosus*, Hess, *Archiv für Nat.* 1865, p. 129, pl. vi., fig. 1.

*Halimus truncatipes*, (?) Miers, *Ann. and Mag. Nat. Hist.* (5) vol. iv., p. 3.

*Hab.* Sydney.

I have little doubt that a specimen in Mr. Macleay's collection and others in the Australian Museum—all from Port Jackson—belong to this species; they have the square truncate terminal joints of the ambulatory legs described by Mr. Miers as distinguishing his *H. truncatipes*, and otherwise exactly conform to his description of that species.

9. *Halimus lævis*, *sp. nov.* ?

Carapace nearly smooth above; five tubercles on the gastric region; no spine on the posterior margin; lateral spines similarly placed to those of *H. spinosus* but smaller—the last almost obsolete. Basal joint of the antennæ with a sharp tooth at its antero-internal angle and a spine at its antero-external angle. Anterior limbs (in the male) very large; arm with a conical tooth at the distal end of its upper surface, and three or four smaller ones further back; wrist very strongly carinated; hand very large, swollen, smooth, with two or three very small fasciculi of hairs; fingers acute, meeting only at their tips when closed, leaving a large interval. Posterior limbs with the penultimate joint compressed, but not truncate as in *H. spinosus*.

*Hab.* Tasmania, King George's Sound, W. Australia.

This species differs from *H. aries* and *H. spinosus* in wanting the spine on the posterior border of the carapace, and from *H. auritus* probably in the large size of the anterior limbs in the male. From *H. tumidus* it differs in the absence of the spines on the outer border of the basal joint of the antennæ.

10. *Microhalimus deflexifrons*, *sub-gen. et sp. nov.* Plate xxv. fig. 2.

Carapace sub-triangular, nearly smooth, the lateral margins with three very minute spines on the hepatic regions, three others on the branchials, a similar minute point towards the middle of the latter region, and another in the middle of the posterior border. Gastric region very prominent, two small tubercles in front opposite the eyes; three rounded tubercles on the cardiac region. Rostrum obliquely deflexed, of two slender, acute, divergent cornua. Orbits not well-defined, with two spines behind the eye—the anterior very small, occupying the posterior angle of the upper orbital border, the posterior much larger than the anterior and separated from it by a considerable interval. Basal joint of the external antennæ enlarged, about twice as long as broad,

armed with an acute spine, directed forwards and outwards, at its antero-external angle, the proximal joints of the flagellum rather stout, and inserted underneath the outer border of the rostrum so as to be partially visible from above. External maxillipedes with the third joint slightly produced and auriculated at its external angle. Anterior limbs, in the female, with the arm and wrist finely tuberculated, the latter non-carinate, the hand narrow, compressed, smooth, the fingers slender, acute; in the male larger than in the female, with the wrist not tuberculated, provided with a strong denticulated longitudinal carina on the outer surface, the hand much larger than in the female, and the fingers stouter, the immovable finger being armed with a stout tooth. Ambulatory legs of moderate length, decreasing in length posteriorly, the penultimate joint very slightly dilated and compressed, the terminal joint falciform. The carapace and ambulatory limbs covered with hooked hairs which are stiffer above the orbits, on the rostrum and on the penultimate joints of the legs. Abdomen consisting of seven segments in the male, five in the female. Length three-fifths in.

*Hab.* Port Jackson (Australian Museum).

This genus finds its nearest ally in *Halimus* from which it is distinguished by the deflexed rostrum, and the absence of prominent spines on the carapace.

#### Genus XENOCARCINUS, White.

##### 11. *Xenocarcinus tuberculatus*, White.

*Xenocarcinus tuberculatus*, White, *Append. Jukes' Voy. Fly*, p. 36, (1847); *Proc. Zool. Soc.*, p. 119, (1847); *List Crust. Brit. Mus.*, p. 123, (1847); *Annals and Mag. Nat. Hist.* (ser. 2) I. p. 221, (1848); *E. J. Miers, Crust. Erebus and Terror*, p. 1, pl. 2, fig. 1; *A. Milne-Edwards, Nouvelles Archives du Muséum*, tome viii., p. 253.

*Hab.* Cumberland Group (White); Viti and Loyalty Islands (Paris Museum).

I have not seen this species, nor the next.

12. *Xenocarcinus depressus*, *Miers*.

*Xenocarcinus depressus*, *Miers*, *Crust. Erebus and Terror*, p. 1.

*Hab.* Cape Howe (Brit. Mus.)

## Genus HUENIA, De Haan.

13. *Huenia bifurcata*, *Streets*.

*Huenia bifurcata*, *Streets*, *Proc. Acad. Nat. Sci. Philad.*, 1870, p. 107, *E. J. Miers*, *Catal. Crust. N. Z.*, p. 3.

*Hab.* New Zealand (Mus. Philad. Acad.); Port Jackson (Macleay Museum; Australian Museum).

14. *Huenia proteus*, *De Haan*.

*Huenia proteus*, *De Haan*, *Crust. Japan*, p. 95, pl. xxiii., figs. 4—6; *Adams and White*, *Voyage of H.M.S. "Samarang," Crustacea*, p. 31, pl. iv., figs. 4—7.

*Hab.* Japan (De Haan); Mindanao; China (H. M. S. "Samarang"); Palm Islands and Percy Islands ("Chevert" Expedition).

## Genus MENÆTHUIS, Milne-Edwards.

15. *Menæthuis monoceros*, *Latr.* (*sp.*)

*Pisa monoceros*, *Latr.*, *Encycl. t. x.*, p. 139.

*Menæthuis subserratus*, *Adams and White*, *Voy. of H. M. S. "Samarang," Crust.* p. 18, pl. iv., figs. 1 and 2.

*Menæthuis monoceros*, *A. Milne-Edwards*, *Nouv. Arch. du Mus.*, t. vii. p. 252.

*Hab.* Red Sea, Philippines, etc.; Port Denison, Queensland.

I have followed Dr. A. Milne-Edwards in combining *M. subserratus*, Adams and White, with *M. monoceros*, Latreille.

16. *Gonatorhynchus tumidus*, (*gen. et sp. nov.*) Pl. xxv. fig. 4.

Carapace sub-triangular, rounded behind; surface finely granulated, covered with hooked hairs which are much closer on the rostrum and over the orbit; gastric region with a few irregular, smooth tubercles; hepatic regions prominent, with a few small,

pointed tubercles; anterior portion of the cardiac region rounded, separated, together with the urogastric region, from the branchial by a broad, low, sinuous ridge which broadens out anteriorly to form a smooth, pear-shaped elevation on the inner part of the branchial region, and breaks up behind into a number of small rugæ; branchial regions dilated, each with two ovate flattened tubercles situated close together towards the centre, and three spinous tubercles towards the lateral margin. Rostrum slightly deflexed; cornua triangular, pointed, slightly divergent. Eyes non-retractile; orbits incomplete, the upper orbital border ending behind in a minute acute tooth, and followed by two convergent spines separated by open fissures. Epistome short. Basal joint of the external antennæ about twice as long as broad, concave from side to side, with a thin outer lip, slightly notched in front, more prominent behind, forming the lower rim of the orbit; a small tooth at the antero-internal angle. External maxillipedes with the third joint produced and rounded at its antero-external angle, the internal angle acute. Arm (in the male) with a dorsal ridge; wrist carinate above; hand slightly dilated, smooth; fingers slender, pointed, two-thirds of the length of the palm, the mobile finger with a large rounded tooth near its base and a row of denticles in its distal half; immobile finger with the inner border concave proximally, with a single, small tooth near the base, straight distally and armed with a row of small denticles. Ambulatory legs covered above with slender hairs, terminal joint slender, hooked, armed below with a row of fine denticles; first pair longer than the body, the rest successively decreasing in length—the last pair shorter than the post-frontal region of the carapace. Abdomen, in the male, with all the segments distinct. Length of carapace and rostrum fourteen lines, breadth nine and a-half lines.

*Hab.* Port Jackson.

FAM. II. *MAIIDÆ*.  
Genus *EGERIA*, Latr.



17. *Egeria arachnoïdes*, *Rumph.* (*sp.*)

*Cancer arachnoïdes*, *Rumph.*, pl. viii., fig. 4; *Inachus longipes*, *Fab. Supp.* p. 358; *Macropus longipes*, *Latr., Hist. Nat. des Crust.*, t. vi., p. 111; *Egeria arachnoïdes*, *Latr., Encyc.* pl. 281, fig. 1; *Leptopus longipes*, *Lamarck, Hist. des Anim. s. vert.*, t. v., p. 235; *Latr. Règne Anim.*, 2e. ed., t. iv., p. 62; *Egeria arachnoïdes*, *Milne-Edwards, Hist. nat. Crust.*, tome i., p. 291.

*Hab.* Coast of Coromandel (Milne-Edwards); Darnley Island, Torres Straits (Chevert Exped.)

18. *Egeria Herbstii*? *Milne-Edwards.*

*Cancer longipes*, *Herbst*, pl. 16, fig. 93; *Leptopus longipes*, *Guérin, Iconog. Cr.*, pl. 10, fig. 3; *Egeria Herbstii*, *Milne-Edwards, Crust.*, tome i., p. 292; *Egeria longipes*, *Adams and White, Crust. "Samarang,"* p. 7.

*Hab.* Seas of Asia (Milne-Edwards); Phillipines (Adams and White); Torres Straits ("Chevert" Exped.); Port Denison (Mr. Alex. Morton).

The specimens which I refer doubtfully to the above species, belong to a species common on the coast of tropical Australia. They differ from Guérin's figure of *Leptopus longipes* in having the orbits widely open above, and the eyes very large and thick, in the less orbicular form of the carapace, and the presence of spines at the distal extremity of the third joint of the ambulatory legs.

## Genus MICROPISA, Stimpson.

19. *Micropisa crassipes*, *A. Milne-Edwards.*

*Micropisa crassipes*, *A. Milne-Edwards, Journal des Museum Godeffroy*, Band i., Heft. iv., p. 78.

*Hab.* New Holland (Museum Godeffroy).

## Genus CHLOROLIBINIA, Lockington.

20. *Chlorolibinia gracilipes*, *Miers.*

*Chlorolibinia gracilipes*, *Miers, Ann. and Mag. N. H.* (5) 19, p. 7, pl. iv., fig. 4.

*Hab.* Papua (H.M.S. "Herald"); Cape Grenville ("Chevert" Expedition).

Genus PARAMITHRAX, Milne-Edwards.

Sub-genus PARAMITHRAX, Miers.

21. *Paramithrax peronii*, *Milne-Edwards*.

*Paramithrax peronii*, *M.-Edw.*, *Hist. Nat. Crust.*, t. i., p. 324; *Jacquinot et Lucas, Voy. au Pole Sud., Zoology*, iii., *Crust.* p. 10, pl. 1, fig. 3 (1853); *Miers, Cat. Crust. N. Z.*, p. 5 (1876).

*Hab.* Indian Ocean, Akaroa (N. Z.) (Hombron et Jacquinot); Australia, (Brit. Mus.)

22. *Paramithrax sternocostulatus*, *A. Milne-Edwards*.

*Paramithrax gaimardii*, *Miers, Cat. Crust. N.Z.*, p. 6, (1876).

*Hab.* New Zealand (Brit. Mus.); Port Jackson (common).

23. *Paramithrax barbicornis*, *Latr. (sp.)*

*Pisa barbicornis*, *Latr., Encycl.* x., p. 141, (1825); *Paramithrax barbicornis*, *Milne-Edwards, Hist. Nat. Crust.* i., p. 324, (1834); *Miers, Ann. Mag. Nat. Hist. (Ser. 4)* xvii., p. 219, (1876), *Catal. Crust. N. Z.*, p. 6, pl. i., fig. 2, (1876).

*Hab.* Australia (Mus. Paris (: New Zealand (Brit. Mus.)

There is in the Macleay Museum an adult male specimen of the species referred to *P. barbicornis* by Mr. Miers; but without the locality marked; and others from Port Jackson, Jervis Bay, Tasmania and Fiji, may prove to be young of the same.

Sub-genus LEPTOMITHRAX, Miers.

24. *Leptomithrax australiensis*, *Miers*.

*Leptomithrax australiensis*, *Miers, Ann. and Mag. N. H.* (4th series) vol. 17, No. 99, p. 220.

*Hab.* Tasmania, (Brit. Mus.)

25. *Leptomithrax spinulosus*, *sp. nov.* Plate xxv., fig. 3.

Carapace much longer than broad, covered with short spinules and curled hairs. Lateral margins with eight pointed spines, the first two close together, separated by a wide interval from the third. Posterior border with two short spines. Rostrum of two acute, divergent spines, the points slightly bent outwards. Post-ocular spine acute, with two accessory spinules on its posterior margin. Basal joint of the antennæ ending in two very long pointed spines, the inner one inclined downwards, forwards and slightly outwards, the outer forwards, outwards and slightly upwards, a row of tubercles on its outer border and two or three on its inner. Anterior limbs equal in length to the carapace and rostrum, arm covered with short spinules above, with two rather longer spines, one on the distal end, the other towards the middle; wrist covered with small tubercles, hand compressed, smooth; fingers acute, smooth, nearly straight. Ambulatory legs and under surface of body covered with a short, close pubescence, the former in addition with a row of fasciculi of curled hairs on the third, fourth, and fifth joints. Length two and three-quarter inches; breadth two inches.

*Hab.* Tasmania, (Australian Museum, collected by Mr. Kendal Broadbent).

A large specimen from King George's Sound, in Mr. Macleay's collection, differs from the Tasmanian species above described mainly in having the spines on the carapace all shorter and blunter and the anterior limbs very large, with the hand much dilated, and the fingers meeting only at the tips when closed.

## Genus CYCLOMAIA, Stimpson.

26. *Cyclomaia margaritata*, *A. Milne-Edwards*.

*Cyclomaia margaritata*, *A. Milne-Edwards*, *Nouv. Arch. du Mus.*, t. viii., p. 236, pl. x., figs. 2 and 3 (1872).

*Hab.* New Caledonia; Sandwich and Viti Islds. (Paris Museum); Abrolhos, Western Australia (Macleay Museum).

Genus *HYASTENUS*, White.27. *Hyastenus diacanthus*, *De Haan*. (*sp.*)

*Pisa* (*Naxia*) *diacantha*, *De Haan*, *Crust. Jap.*, p. 86, pl. xxiv., fig. 1 (1839); *Hyastenus diacanthus*, *A. Milne-Edwards*, *Nouv. Arch. du Mus.*, t. viii., p. 250; *Miers*, *Cat. Crust. N. Z.*, p. 9 (1876). *Hyastenus verreauxii*. *A. Milne-Edwards*, *Nouv. Arch. du Mus.*, t. viii., p. 250.

*Hab.* Japan (*De Haan*); New Zealand (*Brit. Mus.*); Port Jackson; Port Denison; Port Darwin; Torres Straits.

This species varies to a remarkable extent in the length and degree of divergence of the rostral cornua, and the length of the second pair of legs. The specimens from Port Denison are much smaller than those from Port Jackson and have the rostral cornua relatively shorter and stouter; those from Torres Straits are still smaller (7 lines in length) and have the surface of the carapace (in the dried condition) smooth and pearly.

28. *Hyastenus oryx*, *A. Milne-Edwards*.

*Hyastenus oryx*, *A. Milne-Edwards*, *Nouv. Arch. du Mus.*, t. viii., p. 250, pl. xiv., fig. 1.

*Hab.* New Caledonia (*Paris Museum*); Darnley Island, Torres Straits ("Chevert" Expedition); Port Denison.

Genus *NAXIA*, *Milne-Edwards*.29. *Naxia, serpulifera*, *Milne-Edwards*.

*Pisa serpulifera*, *Guérin*, *Icon. Crust.*, p. viii., fig. 2. *Naxia serpulifera*, *Milne-Edwards*, *Hist. Nat. Crust.*, t. i., p. 313.

*Hab.* New Holland (*Paris Museum*); Port Essington (*Macleay Museum*).

Genus *CHLORINOIDES*, (*novum*).

Carapace sub-triangular, armed with long spines. Rostrum consisting of two long, slender, divergent cornua. Eyes retractile; orbits well-defined, open below, with two fissures above. A long

curved supra-orbital spine. Basal joint of the antennæ with a spine at its antero-external angle. First pair of legs slender, as long as the carapace; second pair more than twice as long as the first; following pairs shorter than the second.

This genus is nearly related to *Chlorinus aculeatus* of Milne-Edwards, *C. longispina* of De Haan and *C. acanthonotus* of Adams and White, (which seem to require to be generically separated from *C. heros*, of Leach); it differs from these mainly in the presence of a spine on the basal joint of the antennæ, and the much greater length and slenderness of the ambulatory limbs.

30. *Chlorinoides tenuirostris*, *sp. nov.* Plate xxvi., fig. 1.

Carapace armed in the middle line with a row of four long, pointed spines, of which two are on the gastric region and two on the cardiac; ten shorter spines or tubercles on the lateral portions of the gastric region; five more or less prominent spines on the hepatic and pterygostomian regions—one close to the anterior angle of the buccal orifice; three longer and four shorter spines on the branchial region, a tubercular eminence towards its inner boundary. Rostral cornua slender, acute, two-thirds of the length of the carapace, divergent from their base. Spine at the distal end of the base of the antennæ, prominent, sub-acute, directed forwards and outwards; a compressed blunt spine situated below the orbit, arising from the base of the antennæ, in front of the orifice of the green gland and directed downwards and outwards; another, much shorter, immediately on the outer side of the orifice of the green gland. Anterior legs as long as the carapace, slender, sub-cylindrical; third joint with a small spine at the distal end of its upper surface; hand very slightly dilated in the male. Second pair nearly two and a-half times as long as the carapace and rostrum; third joint in this and the following pairs with a prominent acute spine above at the distal extremity. Abdomen tuberculated. Length, including rostrum, about one and a-half inch.

*Hab.* Darnley Island, Torres Straits.

## Genus MICIPPOIDES, A. Milne-Edwards.

31. *Micippoides longimanus*, *sp. nov.* Plate xxvi., fig. 5.

Carapace elongate-triangular, gastric region dilated, armed with eight tubercles, of which two are in the middle line behind, (the last spiniform) and six (smaller), paired, in front; cardiac region prominent, with two or four large tubercles placed close together; two prominent flattened tubercles on the posterior margin, a short spine in the middle line immediately in front of these and forming with them an equilateral triangle; branchial regions dilated, with a few low tubercles. Rostrum inclined obliquely downwards, more strongly deflexed in the female than in the male—consisting of two rather short, triangular, pointed cornua. Eyes retractile; orbits with a single broad fissure above, separating the upper orbital margin from the post-ocular spine. Basal joint of the antennæ broad, divided by a narrow mesial furrow, bilobed at the extremity. A flattened prominence of irregular outline on the sub-hepatic region and two smaller ones behind one on the pterygostomial region, and the other on the margin of the branchial region above the insertion of the first pair of limbs, a fourth small circular and flattened projection immediately external to the base of the antennæ. Anterior limbs very large in the male, more than once and a-half the length of the rostrum, smaller in the female; arm with a few scattered tubercles; wrist with two irregular keels above in both sexes; hand compressed, longitudinally furrowed; fingers about half the length of the hand, meeting only near their tips, leaving a narrow interspace. Second pair of legs as long as the carapace, following pairs decreasing in length. Abdomen and ambulatory limbs covered closely with short hairs.

*Hab.* Port Jackson, (Australian Museum etc.).

The nearest ally of the present species seems to be *Micippoides angustifrons* of Dr. A. Milne-Edwards (of which there is a specimen from Fiji in Mr. Macleay's collection); and I have ventured to

place it in the same genus, though the greater length of the basal joint of the antennæ affords a well-marked distinctive character.

Genus MICIPPA, Leach.

32. *Micippa parvirostris*, *Miers*.

*Micippa parvirostris*, *Miers*, *Ann. and Mag., N. H.*, (5th series) vol. iv., No. 19, p. 13, pl. iv., fig. 9).

*Hab.* South Australia, Port Lincoln (Mus. Zool. Soc.); Port Jackson (Australian Museum).

The male has the anterior limbs much larger than the female, with the hand very broad.

33. *Micippa spatulifrons*, *A. Milne-Edwards*.

*Micippa spatulifrons*, *A. Milne-Edwards*, *Nouv. Arch. du Mus.* t. viii., p. .

*Hab.* New Caledonia (Paris Museum); Cape Grenville ("Chevert" Expedition).

34. *Micippa inermis*, *sp. nov.* Plate xxvi., fig. 3.

Carapace uniformly tuberculated. Rostrum nearly vertically deflexed, with a deep longitudinal mesial furrow; ending in two sub-triangular horns curved slightly outwards and separated by a wide triangular notch. Upper orbital border very prominent, ending behind in a blunt spine; fissures of the upper orbital margin deep. Lateral borders of carapace with a row of short spinous tubercles. Anterior legs (in the female) slender, smooth, about equalling in length the post-frontal region of the carapace; fingers slender, sub-cylindrical, slightly curved, meeting only towards their tips when closed. Ambulatory limbs stout, decreasing in length posteriorly, each with a small tooth at the extremity of the upper surface of the third joint. Body all covered, with the exception of the anterior legs, with long soft hair. Length fourteen lines; breadth one inch.

*Hab.* Gloucester Passage, Queensland, about five fathoms.

35. *Micippa superciliosa*, *sp. nov.* Plate xxvi., fig. 2.

Carapace granular, hepatic regions depressed. Rostrum nearly vertically deflexed, terminating in four teeth, the inner pair triangular, sub-acute, separated by a wide interval, the outer rather longer, directed forwards and outwards, acute, curved backwards at the tips. A short triangular, præocular tooth; upper orbital border produced, almost tubular; orbital fissures shallow, the first narrow, the second open. Lateral borders armed with six slender spines which increase in length posteriorly. Anterior limbs (in the male) as long as the body; wrist and hand covered with minute granules arranged for the most part in irregular transverse rows; hand somewhat dilated; fingers smooth meeting only near their apex, leaving an oval interspace between them at the base. Length seven lines; breadth (exclusive of the spines) half an inch.

*Hab.* Darnley Island, Torres Straits ("Chevert" Exped.).

In the form of the orbits this species shews a transition towards *Criocarcinus*.

36. *Micippa curtispina*, *sp. nov.* Plate xxv., fig. 1.

Carapace granular; gastric and anterior portion of cardiac regions much elevated towards the middle line; posterior portion of the cardiac region with a low mammiform elevation bounded behind by a narrow semicircular groove; hepatic regions much depressed; an obscure pointed tubercle about the middle of the lateral margin; postero-lateral and posterior margins with five small teeth on each side. Rostrum quite perpendicularly deflexed, the apex slightly inflexed, terminating in four rounded lobes, the two internal narrower and projecting further forward than the two external, separated from one another by a triangular interval, and from the outer pair by a shallow open sinus. Orbital fissures linear. Anterior limbs very small, the arm carinated above, the carina armed distally with two acute teeth; wrist and hand smooth



—the latter compressed, fringed with hairs, the third joint with sharp minutely toothed anterior and posterior borders. Length five lines; breadth four lines.

*Hab.* Port Denison, five fathoms.

Genus PARAMICIPPA, Milne-Edwards.

37. *Paramicippa spinosa*, Stimpson:

*Paramicippa spinosa*, Stimpson, *Proc. Acad. Nat. Sci., Philad.*, p. 218, (1857)  
*Miers, Cat. Crust., N. Z.*, p. 9 (1876).

*Hab.* Port Jackson, (very common); New Zealand (?) (Brit. Mus.)

38. *Paramicippa affinis*, Miers.

*Paramicippa affinis*, Miers, *Ann. and Mag. Nat. Hist.*, (5) 19, p. 13.

*Hab.* Bass's Straits, (Brit. Mus.)

I have seen no specimen of this species.

Genus SCHIZOPHRYS, White.

39. *Schizophrys aspera*, Milne-Edwards.

*Mithrax aspera*, Milne-Edwards, *Hist. nat. Crust.*, t. i., p. 320; *Dione affinis*, De Haan, *Faun. jap., Crust.* p. 94, pl. xxii., fig. 4; *Mithrax spinifrons*, A. Milne-Edwards, *Ann. Soc. Ent. France, 4e série*, t. vii., p. 263, (1867); *Schizophrys aspera*, Stimpson, *Amer. Acad. of Sc. and Arts, January*, 1860; A. Milne-Edwards, *Recherches sur la faune carcinologique de la Nouvelle Calédonie, Nouv. Arch. du Muséum*, tome, viii., p. 231, pl. x., fig. 1.

*Hab.* Zanzibar, Madagascar, New Caledonia (Paris Museum); Maurice, Ousima, Borneo (Stimpson); Sue and Darnley Islands, Torres Straits ("Chevert" Expedition).

Genus PARATHOË, Miers.

40. *Parathoë rotundata*, Miers.

*Parathoë rotundata*, Miers, *An. and Mag. Nat. Hist.* (5), 4, 19, p. 16, pl. v., fig. 2.

*Hab.* Fiji; Port Curtis (Brit. Mus.)

I have seen no specimens of this species.

FAM. III. *PERICERIDÆ*.

Genus *TIARINIA*, Dana.

41. *Tiarinia mammillata*, *sp. nov.*

Carapace sub-triangular, broad behind, ornamented above with pointed and mammiform tubercles, a cross formed by six of these on the gastric region; cardiac region with a prominent eminence crowned by three rounded tubercles placed close together. Cornua of the rostrum about half of the length of the post-frontal region of the carapace, slender, pointed, contiguous throughout their length. Orbit with a prominent pointed, slightly curved spine above and in front, and a compressed spine behind. Anterior legs in the male as long as the post-frontal region of the carapace; third joint with four small teeth on its upper surface, the terminal one rather longer than the others; hand compressed, smooth; fingers half the length of the hand, inner edges armed with teeth in their distal half. Second pair of legs a little longer than the first pair; third joint armed above with a row of half a-dozen small tubercles; third joint of the two following pairs with two or three tubercles; that of the last pair smooth.

*Hab.* Port Darwin (Macleay Museum); Woodlark Islands, (Australian Museum).

42. *Tiarinia* , *sp. ?*

Carapace ornamented above with numerous mammiform tubercles which become elongated into short spines towards the lateral and posterior borders. Rostral cornua long, closely approximated in the greater part of their length, divergent at the tips, each armed externally with three acute spines projecting outwards and slightly forwards—the central one the longest. Upper orbital margin with a curved sub-acute spine at its anterior

extremity. Anterior legs having the arm ornamented with a row of five prominent tubercles on its upper border, an irregular row of small flattened tubercles on its outer surface, and two or three on the under surface; wrist and hand smooth; fingers meeting throughout nearly their whole extent, toothed, spoon-excavate. Third joints of the ambulatory limbs ornamented above with prominent tubercles; fourth joint of the first pair with a short tooth at its anterior and distal angle, that of the following pairs each with four low tubercles above.

*Hab.* Cape Grenville; Darnley Isld., Torres Straits ("Chevert" Exped.)

43. *Tiarinia cornigera*, *Latr. (sp.)*

*Pisa cornigera*, *M.-Edw., Hist. Nat. Crust. t. i., p. 335; Adams and White, "Samar." Crust., p. 18.*

A specimen from Port Darwin in the Macleay Museum probably belongs to this species.

FAM. *PARTHENOPIDÆ.*

Genus *LAMBRUS*, Leach.

44. *Lambrus longimanus* ? *Linn. (sp.)*

*Lambrus longimanus*, *Leach, Linn. Trans. t. ii., p. 310; Desmarest. Cons., p. 85; Milne-Edwards, Hist. nat. Crust., tome i., p. 354 (1834); Miers, Ann. and Mag. Nat. Hist. (5th series) Vol. 4, No. 19, p. 20 (1879).*

*Hab.* Pondichery, Amboina, etc. (Milne-Edwards); Java Sea (Adams and White), Dunk Island (MacGillivray), Isle of France (Brit. Mus.); Darnley Island, Torres Straits ("Chevert" Exped.) Port Denison, Queensland (Australian Museum).

45. *Lambrus turriger* ? *Adams and White.*

*Lambrus turriger*, *Adams and White, Crust. "Samarang," p. 26, pl. v. fig. 2.*

*Hab.* Philippines (Adams and White); Darnley Island, Torres Straits ("Chevert" Exped.)

Adams and White's figure was obviously from a young specimen. The specimen from Darnley Island in the Hon. William Macleay's collection, has the carapace half an inch in length; it differs from the figure in the voyage of the "Samarang" in the rather greater relative length of the anterior limbs, and the less relative breadth of the front, and is probably an adult specimen of the same species.

46. *Lambrus harpax*, *Adams and White*.

*Lambrus harpax*, *Adams and White*, *Crust.* "Samar." p. 25, pl. vi., fig. 3.

*Hab.* China Sea; Coast of Borneo (H. M. S. "Samarang"); Percy Island, Palm Island ("Chevert" Expedition), Port Denison.

This species is liable to considerable variation; there are two extreme varieties connected by intermediate forms from the same localities. Variety *a.* has the characters of Adams and White's description and figure; variety *b.* has end of the ridges above the eyes produced into an elongated spine directed forwards and upwards; a third spine directed upwards and backwards from the point of bifurcation of the dorsal carina, and a fourth on the cardiac regions placed nearly vertically; the outer border of the hand is produced at its proximal end into a prominent rounded lamella.

47. *Lambrus hoplonotus*, *Adams and White*.

*Lambrus hoplonotus*, *Adams and White*, *Crust.* "Samar." p. 35, p. 7, fig. 3.

*A. Milne-Edwards*, *Recherches sur la faune carcinologique de la Nouvelle Calédonie*, *Nouvelles Archives du Muséum*, tome p. 258.

*Hab.* Eastern Seas (H. M. S. "Samarang"); Darnley Island, Cape Grenville ("Chevert" Exp.); Port Denison.

Adult specimens which I refer to this species have the intra-ocular space relatively much smaller than in Adams and White's figure, the front more prominent, and the spines on the outer surface of the hand longer and more acute; but young specimens

resemble the figure so nearly that I have little doubt that they may be referred to this species.

48. *Lambrus affinis*, *A. Milne-Edwards*.

*Lambrus affinis*, *A. Milne-Edwards*, *Faune carcinologique de la Nouvelle Calédonie, Nouvelles Archives du Muséum*, t. viii., p. 261, pl. xiv., fig. 4.

*Hab.* New Caledonia (Paris Museum); Port Darwin (Macleay Museum, collected by Edward Spalding).

The Australian specimens differ from those described and figured by Milne-Edwards in having two rounded teeth on each lateral border of the rostrum.

49. *Lambrus nodosus*, *Jacquinet and Lucas*.

*Lambrus nodosus*, *Jacquinet and Lucas*, *Voy. au Pole Sud., Zool.* iii., p. 13.

*Hab.* New Zealand (Hombron et Jacquinet); Port Denison (Australian Museum, collected by Alex. Morton).

50. *Lambrus spinifer*, *sp. nov.* Plate xxvii., fig. 1.

Carapace deeply sulcated, armed with four prominent spines in the middle line, one on the gastric region and three on the cardiac; two short spines on the posterior margin; hepatic regions with an angulated, tuberculated marginal ridge separated by a deep groove from the posterior part of the lateral margin of the carapace, and continuous in front with a slight longitudinal ridge running forwards to the outer angle of the orbit; lateral margin of the carapace with a row of seven flattened, slightly serrated teeth, generally increasing in length posteriorly; postero-lateral margin with two prominent spines of which the anterior is the larger; a prominent spine about the middle of the branchial region; infero-branchial region armed anteriorly with a row of about nine short blunt, serrated teeth, and behind with a prominent flattened tooth situated behind the insertion of the anterior legs, and a tuberculated ridge just above the base of the ambulatory legs. Front obliquely depressed, prominent, ending in one

mesial, longer, and two lateral, shorter, teeth. Anterior legs two and a half times the length of the carapace and rostrum; a row of seven to twelve conical or compressed teeth on the anterior margin of the arm, four or five conical teeth or more elongated spines on its upper surface, and three more or less prominent spines on its posterior border; hand with a row of four to six larger and four or five smaller triangular spines on its outer border, and about ten of similar shape on its inner; fingers stout, only slightly crossed at the tips when closed. Posterior limbs having the third, fourth and fifth joints armed above with a toothed ridge, most prominent on the third joint, which is armed also below with two rows of small tubercles. Length  $1\frac{1}{4}$  inch.

*Hab.* Cape Grenville, Darnley Island ("Chevert" Exped.) Port Denison.

This species is allied to *L. validus*, De Haan, but is distinguished from it by its longer rostrum and the form and arrangement of the lateral spines. Its nearest ally, however, is *L. longispinus*, Miers, from which it differs merely in the form of the rostrum. A variety (*integrifrons*) with the front almost entire, broad and triangular, of which there are specimens both from Torres Straits and Port Denison, appears to approach very nearly to Mr. Miers's *L. latirostris*, if not identical with it.

51. *Lambrus* (Parthenope) *calappoides*, *Adams and White*.

*Parthenope calappoides*, *Adams and White*, *Zool. of H. M. S. "Samarang," Crustacea*, p. 34, pl. v., fig. 5.

*Hab.* Eastern Seas (H. M. S. "Samarang"); Darnley Island, Torres Straits ("Chevert" Expedition).

52. *Lambrus* (Parthenope) *Sandroekii*, *sp. nov.* Pl. xxvii., fig. 2.

Carapace sub-triangular in outline, ornamented with circular tubercles which are more numerous in the central regions, where they are covered with minute granules; fewer and smooth on the branchial regions; spaces between the tubercles punctate. Front

short, strongly deflexed, ending in a rounded knob, deeply channelled above—the channel interrupted just in front of the eyes by three small rounded tubercles on either side. Antero-lateral margins with a rounded eminence crowned by a tubercle, on the hepatic region, followed by a sharp projecting rim formed by nine closely approximated compressed lobes granulated on their outer borders, the ninth longer than the rest, and with an accessory tooth on its posterior border; postero-lateral angle armed with a prominent blunt spine with three or four short, blunt branches; posterior border with two compressed triangular teeth, of which the outer is much the larger, near the postero-lateral angle, and two tubercles on either side above the insertion of the abdomen. Arm with seven or eight irregular compressed triangular teeth on its posterior, and three on its anterior border, four prominent tubercles situated in a longitudinal row on its upper surface; wrist with a few depressed tubercles; hand with numerous, mostly granulated tubercles, irregularly scattered on the upper surface, forming several irregular rows on the posterior (external) surface, a row of seven or eight on the anterior (internal) border and another of about half a-dozen on the lower border; fingers stout, minutely granulated, movable finger with a crest of lacinated teeth above. Ambulatory limbs compressed, carinated, an irregular number of teeth on the carinæ; terminal joint very long and slender.

*Hab.* Port Denison, Queensland (3 or 4 fathoms).

This well-marked species is in many respects intermediate between *Parthenope tarpeius* of Adams and White, and *Parthenope calappoides* of the same authors; it differs, however, from the former in the less flattened tubercles, the presence of the postero-external spine, and the acute lateral margins, the form of the front and other minor points; and from the latter in the more even surface of the carapace, the absence of the deep pit on the front and the shape of the anterior limbs. Named after Mr. G. F. Sandrock, Collector of Customs at Bowen, Queensland, through whose assistance I obtained my first specimen of the species,

## Genus CRYPTOPODIA, Milne-Edwards.

53. *Cryptopodia fornicata*, *Fabr. (sp.)*

*Cancer fornicatus*, *Fabr., Ent. Syst. t. ii.*, p. 453; *Herbst*, pl. 13, figs. 79—80.

*Æthra fornicata*, *Lamk., Hist. des An. s. vert. t. vi.*, p. 265; *Desmarest, Consid.* p. 110. *Cryptopodia fornicata*, *Milne-Edwards, Hist. Nat. Crust. t. i.*, p. 362; *Adams and White, Zool. of H. M. S. "Samarang," Crustacea* p. 32, pl. vi., fig. 4.

*Hab.* Indian Ocean (Paris Museum); China Seas (H. M. S. "Samarang"); Brook Island; Cape Grenville ("Chevert"); Port Denison.

54. *Cryptopodia spatulifrons*, *Miers.*

*Cryptopodia spatulifrons*, *Miers, Ann. and Mag. Nat. Hist. (5) iv.*, 19, p. 26, pl. v., fig. 10, (1879).

*Hab.* Shark's Bay, Western Australia (H. M. S. "Herald"); Port Jackson (Australian Museum).

The Port Jackson variety of this species, of which I have only seen one specimen, has the surface ornamented with numerous small circular brown spots.

## Genus ZEBRIDA, White.

55. *Zebrida longispina*, *sp. nov.?* Plate xxvii., fig 3.

This species, of which a single specimen was dredged by the Hon. William Macleay, resembles the type species of this peculiar genus in the colouration and markings of the carapace, but differs from it in having all the spines both on the anterior border of the carapace and on the legs much longer and all pointed at the extremities. It is possible that these differences may turn out to be due to difference of age, as the correspondence in the arrangement of the brown markings on the carapace and limbs is very striking.

*Hab.* Darnley Island, Torres Straits.



## Genus GONATONOTUS, Adams and White.

56. *Gonatonotus pentagonus*, Adams and White.

*Gonatonotus pentagonus*, Adams and White, *Zool. "Samarang" Crust.* p. 33, pl. vi., fig. 7.

*Hab.* Coast of Borneo (H. M. S. "Samarang"); Port Denison 5 fathoms (Mr. Alex. Morton).

57. *Gonatonotus crassimanus*, *sp. nov.* Plate xxvi., fig. 4.

Carapace and limbs covered with miliary granulations. Rostrum deeply cleft anteriorly, the cornua straight—the cleft continued on the dorsal surface of the carapace into a mesial groove which reaches nearly half-way towards the posterior border. Branchio-cardiac groove very deep. Anterior limbs once and a-half as long as the carapace, second and third joints each with a small compressed tooth on its anterior margin; fourth joint armed with a prominent slightly curved tooth; hand with two strong blunt teeth above, fingers stout, acuminate, armed with a few triangular teeth. Posterior limbs carinate above, the carina on the third joint with two inconspicuous tubercles, and ending distally in a tooth-like process. Length five and a-half lines; breadth four and a-half.

*Hab.* Port Jackson (Australian Museum).

This species marks a transition towards *Eumedonus*, being only distinguishable from that genus by the straight rostrum. It differs from *G. pentagonus* in the more deeply cleft rostrum, as well as in the greater length of the lateral process, and other points.

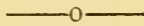
## Genus HARROVIA, Adams and White.

58. *Harrovia tuberculata*, *sp. nov.* Plate xxvii., fig. 1.

Dorsal surface of carapace with eight tubercles crowned with bundles of hairs, four of them on the gastric region in pairs, the anterior pair situated far apart, the posterior close together; two close together in the same transverse line on the anterior part of

the cardiac region ; one on each branchial region. Antero-lateral margins with two teeth, situated close together, the anterior low, triangular, blunt, the posterior, occupying the lateral angle, more prominent, triangular, acute. Supra-orbital tooth pointed, projecting slightly beyond the front. Ambulatory limbs compressed; third joints of the second, third, and fourth pairs with a tooth at the distal end of the upper border ; upper border of the third joint of first pair with two small tubercles towards the middle above, that of the second and third pairs each with a single tubercle in the same situation. Abdomen (of male) with lateral fringes of hairs. In other points resembling *Harrovia albo-lineata*.

*Hab.* Darnley Island ("Chevert" Exped.)



Of the genera mentioned above only three—viz., *Stenorhynchus*, *Achæus*, and *Lambrus*,—all of which are found in European seas—extend beyond the Oriental Region of Prof. Dana. Of the genera confined to the region, many have a wide range within its limits ; these are especially *Camposcia*, *Menathius*, *Micippa*, *Paramicippa*, and *Cryptopodia* ; while others, though seemingly confined to the West Pacific, extend between, or at all events are common to New South Wales and Japan, having in some cases representatives in New Zealand, Fiji, New Caledonia, Borneo, the Philippines, and the coast of China. Among the rarer genera *Zebrida* has hitherto only been observed in Borneo ; *Xenocarcinus* in New Caledonia, tropical Australia, and perhaps in the Indian Ocean ; *Harrovia* in Borneo and the Philippines ; *Gonatonotus* only in Borneo ; *Micippoides* in Fiji ; while *Chlorinoides* and *Gonatorhynchus* are, so far as at present known, peculiar to Australia.

So little is known of the marine zoology of the south of Tasmania and the west coast of Australia that it is impossible to treat with any degree of minuteness of the geographical distribution of genera within the Australian province. Two

well-defined faunas are, however, readily separated and contrasted—viz., the temperate and the tropical, as represented on the northern, eastern, and southern coasts. Only six genera of the present group—viz., *Oncinopus*, *Stenorhynchus*, *Huenia*, *Hyastenus*, *Cryptopodia* and *Gonatonotus* seem to be common to the two contrasted zones, which may be regarded as separated by the parallel of about 25° of south latitude. Characteristic of the northern region are the genera *Egeria*, *Camposcia*, *Xenocarcinus*, *Menæthius*, *Parathoë*, *Chlorolibinia*, *Naxia*, *Tiarinia*, *Schizophrys*, *Lambrus*, *Zebrida*, *Harrovia* and *Chlorinoides*; and of the southern *Achæus*, *Halimus*, *Paramithrax*, *Paramicippa*, *Micippoides* and *Gonatorhynchus*.

None of the Australian species extend beyond the Oriental Region, though one of them—*Camposcia retusa*—ranges at least as far west as Mauritius. Three extend as far north as Japan—viz., *Huenia proteus*, *Hyastenus diacanthus*, and *Schizophrys aspera*; while ten connect tropical Australia with New Caledonia, Borneo, the Philippines or China, viz., *Menæthius monoceros*, *Egeria Herbstii*, *Lambrus longimanus*, *L. turriger*, *L. harpax*, *L. hoplonotus*, *L. calappoides*, *L. affinis*, *Cryptopodia fornicata* and *Gonatonotus pentagonus*. Of species common to Australia and New Zealand there seem to be eight, viz., *Stenorhynchus fissifrons*, *Huenia bifurcata*, *Paramithrax peronii*, *P. barbicornis*, *P. sternocostulatus*, *Hyastenus diacanthus*, *Paramicippa spinosa*, and *Lambrus nodosus*, though it is not unlikely that the list may subsequently require modification, as in many of the earlier collections “New Zealand” and “Australia” appear to have been regarded as almost interchangeable terms.

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EXPLANATION OF PLATES.

Plate XXV.

Fig. 1. *Micippa curtispina*, 1a—rostrum.

„ 2. *Microhalimus deflexifrons*, twice the natural size.

- Fig. 3. *Leptomithrax spinulosus*, natural size.  
 ,, 4. *Gonatorhynchus tumidus*, natural size.  
 ,, 4a. Buccal and antennary region of the same.

## Plate XXVI.

- Fig. 1. *Chlorinoides tenuirostris*, natural size.  
 ,, 1a. Buccal and antennary region of the same.  
 ,, 2. *Micippa superciliosa*, twice the natural size.  
 ,, 2a. Rostrum of the same.  
 ,, 3. *Micippa inermis*, natural size.  
 ,, 3a. Rostrum of the same.  
 ,, 4. *Gonatonotus crassimanus*, natural size.  
 ,, 5. *Micippoides longimanus*, natural size.

## Plate XXVII.

- Fig. 1. *Lambrus spinifer*, natural size.  
 ,, 2. *Lambrus sandrockii*, natural size.  
 ,, 3. *Zebrida longispina*, natural size.  
 ,, 4. *Harrovia tuberculata*, natural size.  
 ,, 5. *Stenorhynchus brevirostris*, natural size.

## NOTES AND EXHIBITS.

On three rare Sharks found in Port Jackson, by William Macleay.—A few days ago Mr. Masters purchased a fine female adult specimen of *Alopias vulpes*, 8 feet long; a species of Shark which is known in Europe under the names of *The Fox* and the *Thresher*. I was aware that it had been previously seen in these seas, and specimens have been occasionally caught on the New Zealand Coast, but it seems to be extremely rare. The specimen in question was shot I believe near the Heads of Port Jackson. It was quite free from *Entozoa* or *Epizoa*, an unusual thing in Sharks, and the ovaries contained no visible ova.