

STUDIES ON AUSTRALIAN MOLLUSCA.

PART II.

(Continued from p. 100.)

BY C. HEDLEY, F.L.S.

(Plates xxv.-xxvi.)

CHLAMYS BLANDA, Reeve.

Reeve, Conch. Icon. viii. 1853, *Pecten*, pl. xxxiv., ff. 162*a*, *b*.

Though this species was reported by Tapparone-Canefri as having been collected by the "Magenta" in Sydney Harbour,* it has never been entered in local lists. I have lately seen a specimen dredged by Mr. J. Brazier in eight fathoms off the Bottle and Glass Rocks near Sydney Heads.

CHLAMYS BEDNALLI, Tate.

Tate, Trans. Roy. Soc. S.A. ix. 1887, p. 73, pl. iv., f. 3.

(Plate xxv., figs. 10, 11, 12, 13.)

Specimens of this species from Sydney Harbour so differed in sculpture from the type described by Prof. Tate that I considered it a new species and prepared the following description and figures. Since doing so I have, through the kindness of Mr. W. T. Bednall, enjoyed the opportunity of studying the actual type of *Pecten bednalli*. Our form has fewer and stronger ribs, not so markedly disposed in twos and threes as the South Australian shell, but so resembles it in other characters that I have thought it best to publish the figures and description, to withdraw the

* Viaggio Magenta, Zoologia, 1873, p. 253.

name I had proposed to bestow, and leave the specific status to be decided by one commanding a larger series.

Shell small, much higher than long and very shallow. Colour reddish-brown, passing into yellow at the apex, irregularly splashed with dark brown and opaque white. Anterior auricles largely, posterior moderately developed, anterior with six, posterior with four strong radiating, nodulose ribs. The radial ribs of the valve number about sixteen; they increase either by interpolation or by an even splitting of the primary ribs; their interstitial grooves are broad and deep. This sculpture scallops the margin and prints the interior. The whole external surface is covered by minute, frail, imbricating scales; arched in the grooves and flat on the ribs (fig. 12). The ctenolium has five well developed and one rudimentary tooth, crowded together. Hinge plate broad. One faint cardinal rib on either side. Resilium small. Chondrophore well within the margin. Height 24, length 20·5, breadth of conjoined valves 7 mm.

Hab.—Off Green Point, Port Jackson; two specimens dredged by Mr. J. Brazier, 10th July, 1886, in 8 fathoms, on a bottom of stones and sand, with broken valves of *Trigonia*.

Type to be presented to the Australian Museum.

The delicate microscopic sculpture of this species should serve to distinguish it readily; at first sight one might think the valves were encrusted with Polyzoa.

ARCOPERNA RECENS, Tate.

Tate, Proc. Malacological Soc. ii. 1897, pp. 181, 182, three figures in the text.

Prof. Tate has, in adding a species and a genus to the Australian fauna, also made known as living a genus, *Arcoperna*, previously only recorded as an Eocene fossil. His material was taken at Port Esperance, Tasmania. I am now enabled to add this most interesting survivor of bygone ages to the list of New South Wales mollusca through the kindness of Mr. J. Brazier, who has shown me a specimen dredged by himself in 8 fathoms

in Salamander Bay, Port Stephens. The specimen, which is slightly smaller than the type, was, he tells me, dredged alive, enclosed in a nodule of hard mud. This curious habit is like that of *Choristodon rubiginosum*.*

LABIOSA MERIDIONALIS, Tate.

Raeta meridionalis, Tate, Trans. Roy. Soc. S. Aust., xi. 1889, p. 61, pl. xi., f. 3.

(Plate xxv., figs. 5, 6, 7, 8, 9.)

This species has hitherto been known from a single valve found on the beach of Aldinga Bay, South Australia. This year I have taken a whole shell containing part of the animal, and on another occasion a broken valve on "Chinaman's Beach," Middle Harbour. Prof. Tate, to whom one valve was submitted, kindly informs me that there is no essential difference between it and the type of *meridionalis*. My specimens are smaller, being 28 mm. in length and 21 mm. in height. Being perfect, I have utilised my example to draw the valves in apposition and other details not obtainable from the single valve hitherto known.

Though disagreeing by vermiculate sculpture, the species seems to me nearer to the subgenus *Raetella*, Dall, than to any other division of *Labiosa*.

MYLITTA GEMMATA, Tate.

Dr. W. H. Dall has recently described† a South Australian shell as *Mylitta inæqualis*, "immediately separable from any of the other species of *Mylitta* by its form and inæquilateral, feebly sculptured valves."

Since these are exactly the characters of the species described by Prof. Tate as *Pythina gemmata*,‡ it seems that Dall was not aware of that diagnosis and has re-named the shell.

* Vide P.Z.S. 1867, p. 942.

† The Nautilus, xii., Aug. 1898, p. 41.

‡ Proc. Phil. Soc. S. Aust., ii. 1878-9, p. 132, pl. v., f. 8.

It was suggested by Smith* that *P. gemmata* should be transferred to *Mylitta*; and this classification was accepted by the author of the species.†

In arriving at the conclusion that *M. inaequalis*, Dall, should be reduced to a synonym of *M. gemmata*, Tate, I have been aided by material kindly forwarded by Mr. E. H. Matthews, the finder of *M. inaequalis*.

VENUS SCABRA, Hanley.

Reeve, Conch. Icon. xiv., *Venus*, pl. xxi., sp. 97, 1863.

This species appears not to have been recorded from N.S. Wales. I have found it rather common from Sydney northwards, as dead shells on beaches facing the ocean.

GLYCYMERIS FLAMMEA, Reeve.

Reeve, Conch. Icon. i., *Pectunculus*, pl. ii., sp. 7, 1843.

On the beach at Boydtown, Twofold Bay, N.S. Wales, I found recently a valve of this species. Not only is an addition thus made to our local fauna, but the real habitat of the shell is now, I believe, first announced. On doubtful grounds this species has been attributed to New Zealand. Hutton reduces it to a synonym of (*P.*) *laticostatus*,‡ a classification at variance with Reeve's figures of the two shells. Reeve has quoted the species as described by himself in the P.Z.S., 1843, but I find no such account in the volume indicated.

The right of the orbicular arks to the name *Glycymeris* is shown by Dall.§

CYTHEREA LAMARCKII, Gray.

Römer, Monog. *Venus*, i. 1855, p. 97, pl. xxvi., f. 1.

I found a few separate valves on the beach in Twofold Bay. This species is, I think, an addition for N.S. Wales.

* Ann. Mag. N.H. (6) viii., Sept. 1891, p. 232.

† Trans. Roy. Soc. S. Aust., xv., pt. ii., Dec. 1892, p. 135.

‡ These Proceedings, ix., 1884, p. 528.

§ Trans. Wagner Inst. iii. 1898, p. 571.

CARDITA BEDDOMEI, Smith.

Smith, Chall. Rep. Zool. xiii. 1885, p. 211, pl. xv., f. 5.

A valve of the unusual dimensions of 21 mm. long and 22 mm. high, occurred to me at Twofold Bay. Like the foregoing stragglers from the south, it is an addition to our fauna.

CADULUS LÆVIS, Brazier.

Dentalium læve, Brazier, (not *D. læve*, Schlotheim), Proc. Linn. Soc. N.S. Wales, ii. 1877, p. 59; *Cadulus lævis*, Pilsbry & Sharp, Man. of Conch. xvii. p. 195.

(Plate xxvi., figs. 8, 9, 10.)

The author of this species has supplied me with co-types from Darnley I., Torres Straits. The shell selected for illustration measures directly from end to end, that is along the chord of the arc, 26 mm. It is exceptional in having the small end bifid; most are circular and simple. A submedian constriction (marking a rest point in growth?) noted in the original description is present in but few examples and varies in position. The degree of curvature varies, young shells being more bent. All under the lens are concentrically wrinkled throughout their length.

Considering the meagre details at their disposal, Messrs. Pilsbry and Sharp estimated with remarkable accuracy the systematic position of the species.

PUNCTURELLA KESTEVENI, n.sp.

(Plate xxv., figs. 15, 16, 17.)

Shell the smallest of the genus known, thin but opaque, elevated, about as high as broad, the summit posterior and excavated by the slit, sides steep, the posterior slope surmounted by a conical projection, being the stump of the apex, which almost overhangs the basal margin. Colour pale brown. Sculpture: uniformly finely shagreened. Aperture oval, broader anteriorly. Slit on the summit, lanceolate, twice as long as

broad. The interior not visible from above through the oblique passage, divided into two chambers by the septum. Septum advanced to a third of the shell's length into the cavity, projecting a median sinus, recurved upwards and forwards on each side to join the shell wall. Margin expanded, externally marked off by a furrow. Length 2.32, breadth 1.48, height 1.28 mm.

Hab.—La Perouse, N.S. Wales (H. L. Kesteven); one specimen, in shell sand.

Type to be presented to the Australian Museum.

This species is named in honour of one of my most successful pupils, Mr. H. L. Kesteven, a gentleman to whose talents both as a student and a collector I have been frequently indebted for assistance. Only two species of this genus have hitherto been recorded from Australian seas. From *P. harrisoni*, Beddome, (= *P. henniana*, Brazier)* and from all named species the hump-backed shape and great development of the septum amply distinguish the novelty. But it is probably allied to, and possibly identical with, an unnamed species noted by Watson† from Torres Straits.

CROSSEIA LABIATA, Tenison-Woods.

Ten.-Woods, Proc. Roy. Soc. Tasm. 1875, p. 151.

(Plate xxvi., fig. 18.)

This species was first recorded from this coast by Mr. A. U. Henn.‡ As it has never been illustrated, I now give a figure of an authentic Tasmanian example kindly furnished by the Rev. H. D. Atkinson. The individual figured is 3 mm. in length.

NERITA MELANOTRAGUS, Smith.

The proper name of our common black Nerite has been a difficult matter to settle. Dr. Boog Watson in the "Gasteropoda

* Proc. Linn. Soc. N.S. Wales, (2) ix. 1894, pl. xiv., figs. 14a, 14b.

† Chall. Report, Gasteropoda, p. 42.

‡ Proc. Linn. Soc. N.S.W. xxi. 1896, p. 500.

of the Challenger Expedition," p. 133, examined the nomenclature and decided that it should bear the name of *Nerita punctata* because Quoy & Gaimard "distinctly say [*N. punctata*] is a species from New Holland." Those writers made no such statement; their actual words are: "Habite l'Ile de France, sur le rivage, vis-à-vis l'habitation de M. Charles Telfair, au Mapou." This locality, so precisely given, leaves us no doubt that whatever else the Australian shell may be called, it cannot be *N. punctata*.

Von Martens* chooses for our shell the name of *Nerita nigra*, Gray, but Gray used this name as of Quoy & Gaimard,† and neither author introduced it into literature with sufficient formality to render its use acceptable. In any case, as Tryon observes, there is a prior *N. nigra* of Chemnitz.

Another solution of the problem is offered by Tryon,‡ who selects *Nerita atrata*, of Reeve, arguing that as Chemnitz was not a binomial author his preoccupation of the name *Nerita atrata* should not count. This argument does not cover all the ground, for the name "*Nerita atrata*" is used binomially, and with a description, by authors intermediate in time between Reeve and Chemnitz. As for example, by Deshayes in the 2nd edition (1838) of the *Animaux sans Vertèbres*, viii., p. 603.

The fact that the only road out of the confusion was to bestow a fresh name on our species occurred simultaneously to two writers. In these Proceedings (Vol. ix., 1884, pt. 2, p. 354) Hutton redescribed the species as *Nerita saturata*. And E. A. Smith in the "Zoological Collections of H.M.S. Alert," p. 69, proposed for it the name *Nerita melanotragus*. Von Martens, in the *Zoological Record* for 1884, observed that these two names clashed, but was unable to decide which had priority. The "Alert" Volume is in the preface dated June 20th, 1884, and is reviewed in "Nature" of September 18th. The Part of these Proceedings in question was issued August 19th. At my request Mr. E. R. Sykes kindly

* Conch. Cab. *Nerita*, 1888, p. 100.

† In Dieffenbach's *Travels in New Zealand*, ii., 1842, p. 240.

‡ *Man. Conch.* x., 1888, p. 26.

ascertained the date of publication of Smith's name to be August 1st, 1884. Therefore precedence must be given to *Nerita melanotragus*, Smith.

In the last Volume of these Proceedings (p. 239) Mr. W. R. Harper drew attention to the use made of this shell by an extinct tribe of aboriginals.

LIOTIA *ROSTRATA*, n.sp.

(Plate xxvi., figs. 4, 5, 6, 7.)

Shell small, rostrate, subdiscoidal, spire sunk, base widely excavate, thin and translucent. Whorls three and a half, separated by a deeply channelled suture, rapidly increasing, last keeled. Parallel to the suture, along the periphery and around the umbilicus run three solid opaque ridges; from the sutural band to the periphery and from that again to the umbilical border, radiate a dozen connecting bars. This sculpture may be otherwise expressed as a dozen tongue-shaped spaces excavated out of the substance of the shell above and below the periphery; the hollows translucent, the elevations opaque. Crossing ridges and furrows alike are minute, close lines, which on higher magnification (fig. 7) resolve themselves into strings of oval pearls. Base wide and deeply excavate. Aperture oblique externally thickened all round. At the junction of the periphery, the lip is produced into a heavy projecting knob which furnishes an excellent recognition mark to the species. Major diameter 2.72, minor diameter 1.92, height 1.2 mm.

Hab.—Thursday Island, Queensland; several examples collected by Mr. J. Brazier.

Type to be presented to the Australian Museum.

LIOTIA *PHILTATA*, n.sp.

(Plate xxvi., figs. 1, 2, 3.)

Shell depressedly turbinate, rather narrowly and deeply umbilicate, spire plane, last and penultimate whorls turreted. Colour

pale yellow. Whorls five, separated by an impressed suture. Sculpture most elaborate; numerous small spiral keels, amounting to thirteen behind the aperture, encircle the shell, wider apart and more prominent at the periphery and growing weaker and closer as they retreat from it. Crossing the spirals, so as to form rhomboidal meshes, are longitudinal ribs of the same calibre, amounting on the last whorl to thirty-two. At the point of intersection the latter rise into small vaulted prickles. This sculpture gradually fades away on the earlier whorls, the longitudinal outlasting the spirals. The first three whorls are smooth. At the edge of the umbilicus the cancellate sculpture ceases abruptly. The base is rounded, about one-fifth of its diameter being occupied by an open, funnel-shaped umbilicus. Aperture oblique, oval, angled above. Outside the incrassate lip is less massive than in southern species of the genus, on the base it is not thickened at all. A smooth callous ridge is spread on the preceding whorl. Major diameter 5, minor 4, height 3 mm.

Hab.—Off Cape York, Queensland; one specimen, dredged by Mr. J. Brazier.

Type to be presented to the Australian Museum.

The novelty is related to *L. calliglypta*, Melvill, from the same district, but is of less height, greater breadth and has more developed spiral sculpture. The slight development of the thickened lip agrees with the latter and with *Cyclostrema cingulifera*, A. Ad.

CYCLOSTREMA ANGELI, Tenison-Woods.

Ten.-Woods, Proc. Roy. Soc. Tasmania, 1876, p. 153.

(Plate xxv., fig. 14.)

It was pointed out last year by Prof. Tate* that under this name Tryon had described and figured another species. As the real *Rissoa angeli* has yet been left unfigured, I now give a drawing of an example received from the late Mr. C. E. Beddome. This specimen measured .8 mm. long; .54 mm. broad.

* Trans. Roy. Soc. S.A. xxiii., 1899, p. 219.

Mr. J. Brazier has handed to me examples of both *C. angeli*, Ten.-Woods, and *C. crebrisculptum*, Tate, which he washed out of sandy mud contained in an old bottle, obtained May 22nd, 1886, in 8 fathoms, off the Bottle and Glass Rocks, Sydney Harbour.

ELUSA SUBULATA, A. Adams.

Pyramidella subulata, A. Ad., Thes. Conch. ii. 1855, p. 815, pl. clxxii. f. 13; P.Z.S. 1853, p. 177, pl. xx., f. 6.

(Plate xxv., figs. 19, 20, 21.)

Specimens of this shell dredged by Mr. J. Brazier off the Queensland coast—viz., in 12 fathoms off Cape Grenville and in 20 fathoms off Darnley Island—add another species to the Australian fauna. Beyond our limits it is reported by Tryon from the Philippines, Red Sea and Japan.

Whether it adds a genus also is a matter of opinion. Adams* separated this and others from *Pyramidella*, as a new genus. Subsequent authors have, however, held the group to be merely of sectional value. Tenison-Woods reported† a Tasmanian species of *Elusa*, but that is now unanimously considered to be a *Turbonilla*.

As the published drawings give scant details I now tender others.

TURBONILLA FUSCA, A. Adams.

Tryon, Man. Conch. viii. 1886, p. 334, pl. 76, fig. 46.

I am enabled to add this species to the fauna of New South Wales on the strength of two specimens which I found at high water mark in Middle Harbour. These have been compared with and correspond exactly to examples from South Australia whence the species was first distinguished.‡

* P.Z.S. 1862, p. 237.

† Proc. Roy. Soc. Tas. 1876, p. 150.

‡ P.Z.S. 1853, p. 181.

RISOA MACCOYI, Tenison-Woods.

Ten.-Woods, Proc. Roy. Soc. Tasm. 1876, p. 154; Tate, Trans. Roy. Soc. S.A. 1899, p. 234.

(Plate xxvi., fig. 11.)

This species was recorded from Sydney Harbour by Mr. A. U. Henn.* I have not, however, been fortunate enough to find it. Having lately obtained an example collected in the Derwent, Tasmania, by the late Mr. C. E. Beddome, I now take the opportunity of figuring the species that others may more easily recognise it. The original of my figure is 1.76 mm. long and .4 mm. broad, and judging from T. Woods' description is probably not mature. Dr. Verco's researches have extended the range of the species to South Australia.

RISOA TENISONI, Tate.

R. tenisoni, Tate, Trans. Roy. Soc. S. Aust. xxiii. p. 233 = *R. australis*, Ten.-Woods, Proc. Roy. Soc. Tasm. 1877, p. 146.

(Plate xxv., fig. 4.)

A figure of this well known Tasmanian species is now for the first time presented.

CHILEUTOMIA ANCEPS, Hedley.

Menon anceps, ante, p. 90.

Prof. Tate kindly points out to me that my genus *Menon* is synonymous with *Chileutomia*, Tate and Cossmann,† proposed for an Eocene fossil from Muddy Creek, Victoria. To assure me of this he forwarded an example of the type species *C. subvaricosa*, T. and C.

Having examined this with care I am quite satisfied to withdraw my name. Nevertheless I maintain that the genus in question ought to be included, where I placed it, in Eulimidæ,

* Proc. Linn. Soc. N.S. Wales, xxi. 1896, p. 500.

† Proc. Roy. Soc. N.S. Wales, xxxi. 1897, p. 403.

not in the Rissoiidae, to which *Chileutomia* was allotted. My oversight of *Chileutomia* was due to this displacement of the family. Prof. Tate now approves of the affinity to the Eulimidae, and remarks that thus another item is added to the continuance of Eocene types in our recent fauna.

COUTHOUYIA GRACILIS, Brazier.

Vanikoro gracilis, Braz., Proc. Linn. Soc. N.S. Wales (2) ix., 1894, p. 169, pl. xiv. fig. 4.

(Plate xxvi., fig. 13.)

From the time I drew the figure quoted, I have doubted the generic position assigned to this species, but without being able to improve it. It was noted after the description that the type "is evidently young." Mrs. C. T. Starkey has kindly placed in my hands an adult example of this rare shell, which I now figure.

The fact that the last whorl is finally free from the body of the shell at once suggests *Couthouyia* for its reception, and the remaining characters agree satisfactorily with that genus. This specimen, which is from Middle Harbour, Sydney, is 3.8 mm. in length and 2.2 mm. in breadth.

Judging from the figure and description, the New Zealand Pliocene fossil described by Murdoch* as *Lacuna* (?) *exilis* must be closely related to *C. gracilis*.

The account of *Couthouyia* is miserably inadequate. The type species *C. decussata* has not been figured. Adams published an illustration of the next species, *C. reticulata*,† which, however, is inconsistent with a drawing from material authenticated (!) by that author [cf. *C. reticulata* in Journ. de Conch. xxxii. 1884, pl. ii. fig. 2]. Such negligent work offends all who unhappily must consult it.

* Trans. N.Z. Inst. 1899, p. 220, pl. xx. f. 3.

† P.Z.S. 1853, pl. xx., fig. 13.

SCALENOSTOMA STRIATUM, n.sp.

(Plate xxvi., figs. 15, 16, 17.)

Shell conical, rather glossy, opaque and solid. Colour dead white. No trace of epidermis. Whorls six, including two which are apical, smooth and glossy. The initial one is as tall but narrower than its follower, thus projecting as a style. The four subsequent whorls are parted by an impressed suture, below which they are slightly shelved, thence moderately rounded. The last is abruptly angled, rather than keeled, at the periphery, and rounded on the base. Sculpture: the adult whorls are closely girt by numerous fine spiral threads, between which are grooves of equal breadth and corresponding depth. These are obliquely and irregularly crossed by fine and coarse growth lines. An obscure varix occurs three-quarters of a whorl behind the aperture. The aperture is oblique; in profile the lip is shown to have a slight, much shallower than in the type, sinus below the suture, thence it curves forward slightly to the periphery, whence it slopes backward to the base. Aperture ovate, rounded below, angled above, lip sharp; columella thickened, a little reflected, deeply entering. Length 6.5, breadth 3.5 mm.—[No operculum. J.B.]

Hab.—Several specimens “found round the anus of a species of *Goniocidaris*, dredged in 10 fathoms, sandy mud, Port Molle, Queensland”; one specimen dredged in 25-30 fathoms off Darnley I., Torres Straits (J. Brazier).

Type to be presented to the Australian Museum.

In this species another genus is added to the Australian fauna. From all co-generic forms its few whorls, comparatively greater breadth and sculpture, amply distinguish it. Another point of interest is that it adds a genus to the list of parasites.

The parasitic Gasteropoda are not many, and it is remarkable that they have chosen their hosts from one class only, the Echinodermata. No distinction was made by earlier writers between

parasites proper and mere commensals. Reckoning *Bathysciadium*, *Conchiolepis*, *Ovula*, *Thyca*, &c., among the latter, I can only find the following described as true parasites:—*Stilifer*, *Eulima*, *Styliferina*, *Entoconcha*, *Entocolax* and *Robillardia*.

MEGALATRACTUS ARUANUS, Linn.

(Plate xxv., fig. 18.)

In my note on this species (*ante*, p. 99) I remarked that though certain writers had seen the nidamental capsules of this mollusc they had refrained from giving any information about them.

Dr. T. H. May, writing from Bundaberg, Queensland, tells me that he sometimes finds these egg-capsules there, occasionally with embryo shells in situ. He most kindly forwarded me a dry and empty capsule which I now figure and describe.

The mass before me weighs three-quarters of an ounce, measures—length 5, breadth $2\frac{3}{4}$, and thickness $1\frac{1}{2}$ inches. The shape is oblong-reniform; the concave side appears to have been attached to some foreign body which passed through an orifice at one end. The capsule is transversely divided into a dozen compartments, hinged together at the back, that is the attached, concave side. Each compartment, now empty, may be supposed to have contained several embryos; each fits into its predecessor and receives its successor cup-wise. The outer face of each compartment is puckered into seven or eight keels, producing a series of imbricating crests which traverse the mass longitudinally. The keels may indicate the number of cells in a compartment.

The plan of construction of this ovisac somewhat corresponds to that of *Pirula canaliculata*, figured by Fischer.* We know too little of the oviposition of the Prosobranchiata to suggest what bearings this may have on the systematic position of *Megalatractus*. It is obvious from the bulk of the larval shell that *M. aruanus* can have no free-swimming stage.

* Manuel, p. 92, f. 85.

CLATHURELLA LEGRANDI, Beddome.

Drillia legrandi, Beddome, Proc. Roy. Soc. Tasm. 1882 (1883), p. 167; *Clathurella legrandi*, Pritchard & Gatliff, Proc. Roy. Soc. Vic. N.S. xii. 1900, p. 178.

(Plate xxv., figs. 1, 2, 3.)

This species has not yet been figured. This opportunity is, therefore, taken of publishing an illustration of an authentic Tasmanian specimen received from the author of the species. The individual drawn measured 6 mm. in length and 2.5 mm. in breadth. Attention may be directed to the peculiar apex, of which the describer took no notice.

TEREBRA FICTILIS, Hinds (?).

Hinds, Thes. Conch. i. 1847, p. 183, pl. xlv. ff. 109, 110.

(Plate xxvi., fig. 14.)

This species, vaguely assigned to "Australia" and not very definitely described, has never been recognised by Australian Conchologists. Tryon considers it identical with *T. bicolor*, Angas, a determination denied by Pritchard and Gatliff. There is a species of *Terebra*, locally known as *T. assimilis*, Angas, which I have collected at Manly Beach, and seen from other points of our coast. This I now figure and describe with the suggestion that it is probably Hinds' long-lost species. Though closely allied to *T. bicolor*, it is separable by form, stronger fewer ribs, and different colour-pattern. It appears to be a deeper water species than *T. bicolor*.

Shell small, rather stout, turreted, glossy. Colour of diverse patterns and shades. One before me is entirely dull white, another wholly a rich chestnut, others are cream variously streaked with purple-brown. Whorls ten, separated by an impressed suture. Nucleus dark brown, smooth, of two whorls. The next two are more elongate with incipient longitudinal ribbing. A third of each of the succeeding six whorls is occupied

by a smooth constricted post-sutural band. These whorls have a dozen apiece of broad low ribs, more opaque than their interstices, on the earlier whorls strongly and on the later weakly developed. Each rib projects at the border of the constriction as a nodule and vanishes before reaching the suture. In one example the nodules coalesce into a continuous ridge. Under the lens the entire surface is seen to be sculptured by fine, close, spiral striæ, decussated by equally fine growth-lines. Base rounded, canal short. Columella edged with a callous ridge. Length 15, breadth 4 mm.

SCAPHANDER MULTISTRIATUS, Brazier.

Brazier, Proc. Linn. Soc. N.S. Wales, ii. 1877, p. 84; Pilsbry, Man. Conch. xv. 1893, p. 252.

(Plate xxvi., fig. 12.)

Having been favoured by Mr. Brazier with a specimen from Darnley Island, one of the original lot of this species, I am enabled to illustrate it. This individual is 11 mm. long, and $3\frac{1}{2}$ mm. broad.

LEUCOTINA HELVA, n.sp.

(Plate xxvi., figs. 19, 20, 21, 22.)

Shell imperforate, slender, fusiform, thin, translucent and very glossy. Colour pale pink. Whorls eight, flattened, divided by an impressed suture. Sculpture: sharp incised and punctate grooves encircle each whorl; about 16 on the last and 5 on the penultimate. The intervening belts are faintly transversely striated. Aperture vertical, pyriform, rounded anteriorly. The columellar plication is so deeply seated that it is invisible in front; if the shell be revolved it comes into sight just as the interior of the aperture closes from view. Length 21, breadth 9 mm.

Hab.—Off Cape Grenville, North Queensland; one specimen dredged by Mr. J. Brazier in 12 fathoms.

Type to be presented to the Australian Museum.

SALINATOR, nom.nov.

Ampullarina, auctorum.

If any conchological textbook be consulted as to the status of *Ampullarina*, it will be found given as a subgenus of *Amphibola*, and ascribed to Sowerby, under date 1842, with *A. fragilis* as type.

Scudder, in the Supplemental List of the Nomenclator Zoologicus, 1882, p. 18, treats the name thus:—"Ampullarina, ———. Teste Sowerby, Conch. Man. ed. 2, p. 64. (Err. typ. ? pro Ampullacera). 1842. Moll."

The second edition is inaccessible to me, but on consulting the third (1846) edition of Sowerby's Manual, the suspicions aroused by Scudder are amply justified. *Ampullarina* is doubtless *Ampullacera* wrongly copied from a MS. label. The name is introduced not as of Sowerby, but as of an unknown author. It is thus defined:—"A genus formed for the reception of *Ampullaria avellana*, f. 58. From Australia." The figure quoted represents the New Zealand species, *avellana*, not the Australian *fragilis*. On p. 312, in the explanation of plates, Sowerby actually notes that the genus is that called *Thallicera* by Swainson.

Authors appear to have assumed that because Australia was named as the habitat of the type, that *fragilis* not *avellana* was indicated. Such assumption is quite unjustifiable in the face of the facts that—(1) Sowerby names *avellana*, (2) that he figures it, and (3) that he regards *Ampullarina* as synonymous with *Thallicera*.

The literary history of *Ampullarina* offers a singular parallel to that of *Pellicaria* proposed for a New Zealand species and wrongly referred to an Australian shell.*

As the group typified by *Ampullaria fragilis* of Lamarck is now shown to be nameless, it devolves on me to suggest a name

* G. F. Harris, Cat. Tert. Moll. B.M. Pt. i., 1897, p. 218.

for it. I, therefore, propose to replace *Ampullarina* of authors, not Sowerby, by *Salinator*.

DIPLOMMATINA OREADIS, n.sp.

(Plate xxv., fig. 22.)

This shell much resembles *D. obesa*, Hedley,† from New Caledonia, and can best be described by comparison with it. The Queensland shell is without the auricular expansion of the periphery, has twice as many lamellæ, and is narrower than the New Caledonian species. *D. oreadis* is 1·8 mm. long and ·9 mm. broad. The only specimen I have seen was collected by the late C. E. Beddome, 20 miles inland from Cardwell, Queensland; it will be preserved in the Australian Museum.

EXPLANATION OF PLATES.

Plate xxv.

Figs. 1-3.—*Drillia legrandi*, Beddome; shell, apex and aperture.

Fig. 4.—*Rissoa tenisoni*, Tate.

Figs. 5-9.—*Labiosa meridionalis*, Tate; valves from different aspects, with details of hinge and sculpture.

Figs. 10-13.—*Chlamys bednalli*, Tate; valves from different aspects, with details of hinge and sculpture.

Fig. 14.—*Cyclostrema angeli*, Tenison-Woods.

Figs. 15-17.—*Puncturella kesteveni*, Hedley; different aspects of shell.

Fig. 18.—*Megalatractus aruanus*, Linn.; mass of egg-capsules.

Figs. 19-21.—*Elusa subulata*, A. Adams; shell, with details of apex and aperture.

Fig. 22.—*Diplommatina oreadis*, Hedley.

Plate xxvi.

Figs. 1-3.—*Liotia philtata*, Hedley; different aspects of shell.

Figs. 4-7.—*Liotia rostrata*, Hedley; different aspects of shell and microscopic sculpture.

Figs. 8-10.—*Cadulus laevis*, Brazier; shell, with details of each extremity.

Fig. 11.—*Rissoa maccoyi*, Tenison-Woods.

Fig. 12.—*Scaphander multistriatus*, Brazier.

† These Proceedings, 1898, p. 102.

Fig. 13.—*Couthouyia gracilis*, Brazier.

Fig. 14.—*Terebra fictilis*, Hinds.

Figs. 15-17—*Scalenostoma striatum*, Hedley; shell, with details of apex and aperture.

Fig. 18.—*Crosseia labiata*, Tenison-Woods.

Figs. 19-22.—*Leucotina helva*, Hedley; shell, with details of apex, sculpture and aperture.

All enlarged and to various proportions.



Hedley, Charles. 1900. "Studies on Australian Mollusca. Part II." *Proceedings of the Linnean Society of New South Wales* 25, 495–513.

<https://doi.org/10.5962/bhl.part.12168>.

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