NEW MARINE MOLLUSCA (PL. XIII., XIV., AND XV.).

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TASMANIAN MARGINELLAS.

Tenison Woods when describing M. cypræoides in these Proceedings for 1877 remarked, "Tasmania is already rich in this genus." If such could be said when the number of species known here was less than a dozen, how much more may it be emphasised when the total, with those I am now describing, amounts to some 40 species?

Recent dredgings in our deeper waters, from 40 to 100 fathoms, have brought to light a great number of new forms, some of which are very distinct species, whilst others vary so greatly in both form and size as to make them exceedingly puzzling. The present paper is an attempt to bring some order out of chaos, and will narrow the work down considerably. In dealing with such a variable group it cannot be hoped that my present work will be final; future discoveries and a larger amount of material may show some of the species to be varieties only. On the other hand some, which I now pass as varieties, may yet be established as good species.

The main difficulty has been with—

1st. The group represented by M. angasi, M. halli, M. shorehami, and M. simsoni, to which are now added M. connectans and M. indiscreta.

There is an almost endless variation between these species, and it might seem superfluous to add more to them, but connectans seems to be the centre of a somewhat fairly defined sub-group distinguished by a generally cylindroid shape, and which seemed to require focusing in a species for general convenience; and indiscreta stands at present at the end of a series in its

direction, and remains fairly distinct from its nearest ally. There are several more tolerably distinct forms that are tempting to describe, but I leave them for the present.

2nd. The group represented by M. allporti. Here again the variation is great, and the question whether some of the forms represent species or only varieties is a difficult one. M. kemblensis, Hedley is an intermediate form which has been withdrawn by the author, but I am inclined to let it stand as a species for the present, as it represents a sub-group apparently confined to deep water. I have selected a large form for description, M. gracilis, which is far removed from M. allporti, and considerably so from the nearest connection. Other intermediate, but fairly distinct forms, are left for further consideration.

In addition, I know of several distinct species which cannot yet be dealt with for want of more and better material, and have no doubt that when our waters have been thoroughly searched our total list of species of this beautiful little genus will be at least 50.

I have had the advantage of examining a large series of new forms from South Australia, dredged by Dr. Verco in the deeper waters of that state. Many of those I am now dealing with occur there also, and the variation is even greater, largely owing probably to the much more extensive dredging operations.

I have drawn the figures carefully under the camera lucida, and they gave a faithful representation of the species. The types have been placed in the Tasmanian Museum, Hobart.

MARGINELLA HEDLEYI, N.S.P. (PL. XIII., FIG. 1.)

Shell solid, cylindroid, with a distinct spire, yellowish white, with two distinct orange bands: spire obtuse, whorls four; aperture rather narrow, widening anteriorly; lip slightly thickened, and finely denticulate in the type; some specimens are, however, smooth in this respect; columella convexly curved, with four strong oblique plaits, and a tendency towards a fifth. The two orange colour bands divide the shell into three roughly equal

divisions; these bands are always distinct without any shading or accessory bands or lines; there is also a patch of the same colour surrounding the anterior plaits.

Length, 13 m.m.; breadth, 5.5 m.m.

Locality: Type from 100 fathoms seven miles east of Cape Pillar, with a number of others; also from 80 fathoms 10 miles east of Schouten Island.

This might be described as a giant M. mustellina, Angas. It is distinguished from that species by its great size and solidity, and the different colour pattern, which is very constant.

It is a very fine and conspicuous form, which I have much pleasure in dedicating to my friend, Mr. Charles Hedley.

MARGINELLA ALBOMACULATA, N.SP. (PL. XIII., FIG. 2.)

Shell bulbiform, or drop shaped, very solid, glossy; spire quite hidden, the summit of the shell being very broad and dome shaped; aperture as long as the shell, rather narrow, and much curved; outer lips massive, but with a sharp edge; it bends widely out above, but with an inward sweep below, giving it a sinuous outline; it descends in front below the pillar, in joining which it bends far back; well within the lip are numerous obscure rib-like plications; columella very convex, heavily enamelled, and spreading well out over the base of the shell, and bearing six plications, of which the first two are much the largest, the second being the largest of all, and reaching well out over the ventral base; the upper four are much further within the aperture, and become smaller, the last being little more than a small tubercle; colour grevish-white, with about seven revolving lines of obscure elongated white spots.

Length, 6 m.m.; breadth, 4 m.m.

Locality: Type from Frederick Henry Bay in a kelp root, with one other specimen.

This is very distinct from any other Tasmanian species, and seems to belong to the saggitata group.

MARGINELLA ALTILABRA, N.S.P. (PL. XIII., FIG. 3).

Shell pyriform, glossy, white, solid, with a slightly elevated spire; whorls four; aperture narrow, linear; outer lip moderately thickened, mounting the spire about half its height at the junction; it then rises almost to the level of the spire, at the same time curving strongly to the front, giving it a spout-like appearance, and after an outward sweep it descends in a straight line to the square front; within it is very finely and obscurely corrugated; columella with four moderate obliquely ascending teeth, the upper one being almost invisible from a front view.

Length, 5 m.m.; breadth, 2.6 m.m.

Locality: Type 80 fathoms 10 miles east of Schouten Island, with about 50 others; also numerous in 100 fathoms seven miles east of Cape Pillar, and in less numbers in 40 fathoms off Schouten Island. This is a close ally of M. stilla Hedley, Mem. Aus. Mus., Pt. 6, 1903, p. 367, and is perhaps the variety he refers to there. I have collected at least a hundred specimens, which are constant in form; it differs from stilla in its narrower form anteriorly, the very high angle of the lip with its great forward curve, the comparatively weak teeth, and the absence of the strong denticulations on the outer lip.

MARGINELLA GRACILIS, N.S.P. (PL. XIII., FIG. 4.)

Shell biconical, somewhat thin in texture, semi-transparent, with an elevated spire; colour white with orange bands; whorls five, rounded; aperture very narrow above, rather wide centrally, and again narrow at the rounded anterior end; outer lip convex, bearing within a distinct tubercle at one-eighth from the posterior end, and followed by very small irregular crenulations; columella strongly excavate, with four well-developed plaits, at first obliquely ascending, but becoming less so, the upper one being almost at right angles with the pillar. There is a colour band immediately above and below the suture; two broad ones on the body whorl are almost confluent, the upper one reaching above the aperture, and the lower to the last plication; a very narrow band leaves the third plication, and shows in the inner end of the mouth as a bright orange blotch.

Length, 11.5 m.m.; breadth, 5 m.m.

Locality: Type from 100 fathoms seven miles east of Cape Pillar, with several others: also from 80 fathoms 10 miles east of Schouten Island. So far it seems confined to deep water.

This species has considerable resemblance to M. kemblensis Hedley, but besides being more than twice as long, it differs in having a sharper spire, in the tubercle being much nearer the posterior end, and the plications reaching a less distance up the more excavate columella.

This is a fine conspicuous form, and resembles M. mayi Tate in size and general appearance, but that species is shorter, broader, and more massive in all respects, and without the characteristic tubercle. It is possible that the colour bands are not constant.

MARGINELLA LODDERÆ, N.S.P. (PL. XIII., FIG. 5.)

Shell fusiform, wih a long spire, very highly polished, yellowish, and faintly banded dorsally; whorls four; apex blunt and rounded; aperture not much more than half the length of the shell, very narrow above, but rapidly widening; outer lip slightly thickened, rounded, smooth; columella concave, with four strong obliquely ascending plaits.

Length, 8 m.m.; breadth, 4 m.m.

Locality: Type from 100 fathoms seven miles east of Cape Pillar, with two others.

Not like any other described species known to me. It also occurs in deep water in South Australia, where there is another unnamed form which is a near relative (Dr. Verco).

MARGINELLA DENTIENS, N.S.P. (PL. XIII., FIG. 6.)

Shell sub-cylindrical, narrow, with a prominent blunt topped spire, pure white, shining, porcellaneous; whorls three (?); aperture narrow, but widening anteriorly; outer lip thickened, curved outside, but straight within, and armed with numerous denticles, which are very irregular

both in size and spacing; columella nearly straight, bearing four strong oblique plaits.

Length, 6 m.m.; breadth, 2.5 m.m.

Locality: Type from 100 fathoms seven miles east of Cape Pillar, with several others; also in 80 fathoms 10 miles east of Schouten Island, one specimen.

This appears so far to be a deep water species; it closely approaches in form M. triplicata Tate, but is readily distinguished by the four plaits and strongly denticulated outer lip.

MARGINELLA VERCOI, N.S.P. (PL. XIII., FIG. 7.)

Shell pyriform, broadly shouldered, especially over the aperture, and with a prominent spire; colour pure white and shining; whorls five, rounded; aperture narrow, widening somewhat towards the squared anterior end; outer lip thick, nearly straight, after bending well forward from the shoulder, with about six denticles near the centre of its length on the inner edge; columella somewhat excavate, bearing four plaits, the first with a strong upward sweep from the base, the others less oblique, smaller, and wider spaced as they ascend.

Length, 5.5 m.m.; breadth, 3.5 m.m.

Locality: Type from 100 fathoms seven miles east of Cape Pillar, with many others, some living; also in 80 and 40 fathoms off Schouten Island; many in the former, but less in the latter depth.

This handsome species is very constant in size and form; it has a resemblance to M. lævigata Brazier, which, however, is a much broader and more massive shell, with a shorter spire and mammillated apex. It has also been taken in deep water in South Australia by Dr. Verco, to whom I have much pleasure in dedicating it.

MARGINELLA GATLIFFI, N.S.P. (PL. XIII., FIG. 8.)

Shell broadly pyriform, solid, with a moderately elevated blunt spire, very broad shouldered, but becoming quite narrowed in front; colour yellowish white; whorls three, rounded; aperture moderate, widening slightly towards the rounded front; outer lip massive, heavily varixed, partially ascending the spire, from which it projects at almost right angles to form a broad shoulder, and then bends sharply down with a strong outward curve; from a side view it is also strongly curved towards the front; the inner edge, which is convex, is armed with about seven irregularly spaced denticles; columella roundly convex above, but hollowed in the space occupied by the plaits, which are four in number, rising obliquely, of moderate size, the upper one being the smallest.

Length, 3.3 m.m.; breadth, 2.5 m.m.

Locality: Type 40 fathoms three miles east of Schouten Island, with many others, all dead; also in 60 and 80 fathoms, but becoming few in the deeper water. It resembles M. ochracea Angas, but is a very much broader shell, with a shorter spire. From M. lævigata Brazier, which occurred with it, it differs, besides being only half the size, in considerable difference of outline, in the much more feeble plaits, and far less heavily toothed outer lip. It is also related to M. vercoi, from which, however, it is still more distinct.

Named in honour of Mr. Gatliff, who has done so much for the Victorian mollusca.

MARGINELLA GABRIELI, N.S.P. (PL. XIII., FIG. 9.)

Shell biconical, or fusiform, shining, translucent, but not very thin, with an elevated spire and blunt apex; white, with four orange bands; whorls four, rather rounded; aperture narrow, almost linear, but widening anteriorly, where it is rounded; outer lip moderately thickened and smooth; columella nearly straight, with four well developed plaits, which become smaller and less oblique, and also retreat further within the aperture as they ascend. The anterior band is narrow, and passes between the two upper folds; the second and third in the centre of the whorl are near together, and enter the aperture about its upper third; the fourth is at the suture, and continues on the spire.

Length, 4 m.m.; breadth, 2 m.m.

Locality: Type from 100 fathoms seven miles east of Cape Pillar, with a number of others. A shell of simple character, very constant in form and colour in the type locality; but some examples taken in 15 fathoms in Geography Strait vary from typical, to others which are a uniform rich brown, and somewhat broader and heavier. In South Australia it varies considerably in size, and sometimes loses the colour bands also.

Named in honour of Mr. C. J. Gabriel, an enthusiastic conchological worker.

MARGINELLA CONSOBRINA, N.S.P. (PL. XIV., FIG. 10).

Shell pyriform, or bluntly fusiform; yellowish white, opaque, with a moderately elevated spire, blunt and rounded at the apex; whorls three, rounded; aperture narrow above, but broadening somewhat rapidly to the rounded front; outer lip curved, moderately thickened, and simple; columella convex, with four narrow plaits, the upper one much the smallest, and almost invisible from a front view.

Length, 4.5 m.m.; breadth, 2.5 m.m.

Locality: Type from 100 fathoms seven miles east of

Cape Pillar, with two others.

This bears a considerable general resemblance to the last, but is a larger, broader shell. It occurs also in South Australia (Dr. Verco).

MARGINELLA CONNECTANS, N.S.P. (PL. XIV., FIG. 11).

Shell sub-cylindrical, with a short obtuse spire; whorls two or three; dull chalky white; aperture narrow, linear in the upper part, but much wider towards the squared front; outer lip moderately convex, thickened, and simple; columella bearing four plaits, the anterior marginal being strong, the others much smaller, the upper two being widely spaced, and the last one a mere wrinkle.

Length, 3 m.m.; breadth, 1.7 m.m.

Locality: Type from 100 fathoms seven miles east of Cape Pillar, with very many others; plentiful also in 80

and 40 fathoms off Schouten Island.

The above are the dimensions and particulars of the type, which I have selected as intermediary in the variation. It is a very variable form, and it is with some diffidence that I attempt to establish it as a species; the plications may vary from three to five or six, but are often little more than wrinkles; the anterior one is always distinctly the strongest; the spire may be quite hidden when the aperture is as long as the shell. There is also much variation in size, some being scarcely more than 1.5 m.m. in length. The most constant feature is the cylindrical form. This seems intermediary between M. shorehami P. and G. and M. angasi Braz., both of which are approached by some of the variations. It is more cylindrical than either of them, has a straighter aperture and columella than angasi, and a smaller spire, and less broad shouldered form than shorehami, but it may eventually be shown to intergrade with these two species, both of which occurred with it. Plentiful and even more variable in South Australia (Dr. Verco); Western Port, Victoria (C. Gabriel).

MARGINELLA INDISCRETA, N.S.P. (PL. XIV., FIG. 12).

Shell minute, pyriform, with a sunken spire, pure white; aperture as long as the shell, very narrow above, but widening towards the squared front; outer lip moderately thickened, smooth, rising well above the summit of the shell; columella convex, bearing two plaits, the anterior much the stronger; spire deeply sunken, but showing a minute, mammillate apex.

Length, 2 m.m.; breadth, 1.3 m.m.

Locality: Type from 100 fathoms seven miles east of Cape Pillar, with several others.

It is with some hesitation I describe this form, which seems to stand at one end of a variation of which M. simsoni Tate and May occupies the other; however, this is so much removed from the latter, and somewhat decidedly so from the next connection, that it seemed sufficiently distinct to warrant description, but forms increasing in number of plications and exertness of spire are intermediate between it and simsoni.

In its sunken spire and biplicate columella it recalls M. cratericula Tate and May, but in other respects is widely different from that species. It occurs also in South Australia, where the variation is also extremely great (Dr. Verco).

MARGINELLA MICROSCOPICA, N.S.P. (PL. XIV., FIG. 13).

Shell very minute, cylindrical; spire hidden; dull white; aperture as long as the shell; narrow, linear, but expanding anteriorly; outer lip straight, thickened, smooth; columella rather convex, with three oblique plaits.

Length, 1.5 m.m.; breadth, .7 m.m.

Locality: Type from 100 fathoms seven miles east of Cape Pillar, with several others.

This is the most minute species known to me. It is somewhat like M. whani Prit and Gatliff. on a microscopic scale; but in that species, besides the vast difference in size, the aperture bends over the summit to a far greater degree.

II.—The following 14 species, now described as new, are principally from the deeper waters of our continental shelf, where recent dredgings have introduced us to a rich field of which we can have as yet but a very slight acquaintance.

There is not in this assemblage anything extraordinarily new to our fauna with the exception of the shell I have named Daphnella pagoda. This is a striking novelty, and is rather tentatively placed at present; it may require a new genus for its reception. As with the Marginellas I have drawn these figures under the camera lucida, and the types are also placed in the Tasmanian Museum.

PISANIA SCHOUTANICA. (PL. XIV., FIGS. 14-14a.)

Shell yellowish brown, solid, bluntly fusiform; whorls five (plus a small, smooth two-whorled protoconch), rounded, each bearing a strong varix; aperture elongated

oval; outer lip curved, sharp at the edge, but backed by a heavy varix; within strongly toothed opposite the ribs; the inner lip spreads a broad band of enamel over the arched columella. Sculpture: The first spire whorl has numerous smooth axial ribs, the second has the same, but the ribs are slightly grooved by obscure depressed concentric liræ: the remaining whorls are strongly cancellated by axial and revolving grooves; in each of the latter is a small keel; the square meshes so produced are each occupied by a round pustule, giving the shell a beautiful granular appearance.

Length, 13 m.m.; breadth, 5.3 m.m.

Locality: Type from 80 fathoms 10 miles east of Schouten Island, with two others immature.

This species has some resemblance to P. reticulata, but besides being only about one-third the length, there is considerable difference in the sculpture, especially on the upper whorls. For comparison I have added a figure of the apical portion of an ordinary example of P. reticulata, drawn to the same scale of magnification.

HEMIPLEUROTOMA ESPERANZA, N.S. (PL. XIV., FIG. 15.)

Shell dull white, high, attenuate anteriorly; whorls six, strongly angular, and including a smooth blunt two-whorled protoconch. Sculpture: A strong keel angles the periphery, another less strong half-way to the lower suture, and a third margins the suture; on the upper slope are two or more faint spirals. Numerous axial liræ cancellate the shell and pass over the keels, rendering them nodulous; they disappear on the lower part of the body whorl, which is occupied by about eight smooth spirals; mouth subquadrate, contracted in front to form a short open canal; outer lip strongly angled at the carena, forming a wide, triangular sinus; below corrugated by the sculpture; inner lip curved.

Length, 5.3 m.m.; breadth, 2 m.m.

Locality: Type from 24 fathoms in Port Esperance; also from 40 fathoms three miles east of Schouten Island; one example. These localities are some 150 miles apart by water. A very distinct little species, slightly recalling M. mayi Verco.

HEMIPLEUROTOMA TASMANICA, N.S. (PL. XIV., FIG. 16.)

Shell solid, rugged, elongate fusiform, dull bluish white; whorls nine, including the protoconch of three whorls, of which the first is smooth and round, the others obscurely axially ribbed; these whorls show little increase in size, giving the shell a mucronate appearance; spire whorls rounded; suture well impressed; aperture obliquely oval; canal open, of medium length; outer lip imperfect; the sculpture indicates a large, shallow sinus at the carina; columella arched above; the enamel of the inner lip spreads well out on the base of the shell. The sculpture consists of two rows of rounded tubercles separated by a depression, but connected by a low axial ridge between each; there is also a roughly nodulous rib below the suture; the nodules are comparatively larger and more distinct on the spire; on the body whorl the lower row becomes increasingly less distinct, and there are several plain keels on the base.

Length, 21 m.m.; breadth, 8 m.m.; length of aperture, 9 m.m.

Locality: Type from 40 fathoms three miles east of Schouten Island, with four others, all imperfect. I have placed it with Hemipleurotoma because of the sinus at the carina, but possibly the canal is somewhat long. It has an obvious resemblance to H. quoyi, from which, however, it is sufficiently distinct, both by its sculpture and the peculiar peg-like apex.

DRILLIA SCHOUTANICA, N.S. (PL. XIV., FIG. 17.)

Shell pure white, turretted, subfusiform; whorls seven, including a blunt protoconch of two smooth rounded whorls; spire whorls convexly angular, girt with a row of distant nodules at the periphery, and a smaller row at the suture, on the lower part of the whorl is a somewhat nodulous keel, and between the two upper rows on the flatly sloping shoulder are four narrow raised liræ. The body whorl has about 15 liræ on the base, the first, opposite the suture, being nodulous; some of these liræ form ridges within the aperture; mouth squarely oval, opening into a short wide canal; lip thin, angled at the upper

fourth; in profile it shows a deep trigonal sinus between the suture and the angle, and is then convex; inner lip arched, callously expanding over the columella.

Length, 12.5 m.m.; breadth, 5 m.m.

Locality: Type from 80 fathoms 10 miles east of Schouten Island, with six others. It seems nearest to D. jaffaensis Verco, but is larger, and the sculpture is sufficiently distinct.

DRILLIA SUBVIRDIS, N.S. (PL. XIV., FIG. 18.)

Shell subfusiform, solid; colour greenish white; interior of aperture dark green; whorls 71/2, including a protoconch of two smooth rounded whorls. The sculpture consists of numerous strong, smooth, rounded ribs, which are not separated by any intermediate space, and which spring directly from the suture. There are about 15 of these ribs on the penultimate whorl; a deep groove or depression on the upper part of the whorl almost réduces the ribs to vanishing point, above which they reappear with a strong bend towards the left, and give the effect of a row of tubercles at the suture. There is one faint impressed line about the upper third of the body whorl, and a number on the base; aperture short and broad, widely open anteriorly, with scarcely any contraction for a canal; outer lip simple, rounded, with a deep notch at the suture; columella strongly arched; lip broadly expanded over the body whorl, developing a strong callosity where it curves round above the sinus; operculum ovate, with apical nucleus.

Length, 16 m.m.; breadth, 6 m.m.; length of aperture, 6 m.m., but a cotype is 20 m.m. long.

Locality: Type from eight to nine fathoms off Pilot Station, Derwent Estuary, with others; also two very dead and broken from 40 fathoms three miles east of Schouten Island.

This fine species is one of the largest members of the family in Tasmania. It is remarkable that it should have escaped detection so long. It is nearly related to D. woodsi Beddome, but is distinguished by the long straight ribs—not nodulous—and which continue to the suture, although bent by the sinus groove and by its stouter form and much larger size.

MANGILIA SCHOUTENENSIS, N.S. (PL. XV., FIG. 19).

Shell solid, yellowish white, subfusiform; whorls five, rounded, including a large protoconch of two rounded polished whorls; the other whorls strongly ribbed by distant curved ribs, about 12 on the spire; on the body whorl they disappear above the middle. The whole shell is girt by numerous irregularly spaced impressed lines, which pass over the ribs. Mouth elongate, oval, with no contraction for a canal; outer lip thin, curved, with a moderate sinus at the suture, which bends the ribs; columella straight.

Length, 5.3 m.m.; breadth, 2.5 m.m.

Locality: Type from 40 fathoms three miles east of Schouten Island, with 12 others.

A shell of simple character, most nearly related to M. delicatula Ten. Woods, the sculpture of which is similar, but is easily separable by its few whorls and the very different apex.

DAPHNELLA PAGODA, N.S. (PL. XV., FIG. 20.)

Shell fusiform, white, tinted with violet and vellow, particularly between the ribs; whorls 6½, including a rounded, smooth two-whorled protoconch; the three spire whorls spread flatly out from the suture to form a broad shelf, and then curve sharply down and inwards to the base, being far the widest at the angle; strong rounded ribs, about 12 on the first whorl and 16 on the penultimate, extend from the lower suture to the carena, where they form a nodulous ridge, higher than the shelf, and continue obscurely to the suture; five or six insized spirals corrugate the ribs; the body whorl is large, without ribs, but has a number of sharp, distant spiral liræ; the periphery forms a sharp angle, the edge of which is higher than the flat shelf, which is spirally lirate, and crossed by fine curved lines of growth, corresponding with a shallow sinus; mouth oblong, square above, produced anteriorly into a short open canal.

Length, 13 m.m.; breadth, 8 m.m.

Locality: Type from 80 fathoms 10 miles east of Schouten Island, with two others broken.

This is a little gem; its curious and elegant form, combined with a glistening whiteness, and the soft violet tints of the spire, render it a most beautiful natural object. It is so widely different from any other shell known to me that its classification is a matter of doubt. It seemed at present best to consider it a Pleurotomid, and I have placed it in Daphnella. It may require a new genus for its reception.

MITROMORPHA MULTICOSTATA, N.S. (PL. XV., FIG. 21.)

Shell solid, yellowish; elongate oval of five whorls, including a pointed protoconch of two smooth whorls; spire whorls convex; suture well impressed; base contracted; aperture elongate oval, not constricted into a canal; outer lip simple, convex in outline; columella slightly curved; numerous straight rounded axial ribs extend across the whorls, and over about two-thirds of the body whorl there are about 24 on the penultimate; they are separated by deep grooves, which are narrower than the ribs; there is one distinct spiral groove or depression below the suture; numerous faint spirals cross the shell, and are most conspicuous in the grooves; they become much stronger on the base.

Length, 4.3 m.m.; breadth, 2 m.m.

Locality: Type from 100 fathoms seven miles east of Cape Pillar, with three others.

This has a considerable resemblance to M. axicostata Verco, but has more numerous and more closely set and stronger ribs, and far weaker liræ, which latter can scarcely be seen without a lens.

MITROMORPHA SOLIDA, N.S. (PL. XV., FIG. 22.)

Shell solid, elongate, whitish, with a few rusty spots below the suture and on the middle of the body whorl; whorls six, rounded, including a smooth two-whorled protoconch; suture distinct; aperture ovate, scarcely contracted anteriorly, widely open; outer lip rounded, simple, without a sinus; inner lip strongly curved, and simple. On the spire whorls are about 10 strong spiral liræ, separated by slightly narrower grooves; these liræ continue over the body whorl almost to its base.

Length, 9.4 m.m.; breadth, 3.3 m.m.

Locality: Type from 40 fathoms three miles east of Schouten Island, with one other, and from 80 fathoms one example; also from 100 fathoms seven miles east of Cape Pillar three imperfect.

This is a larger and more solid shell than our other members of the genus; it cannot be considered a typical species, and might perhaps be as well placed in Donovonia; it much resembles in form M. pallidula Hedley

TURRITELLA MICROSCOPICA, N.S. (PL. XV., FIG. 23).

Shell minute, straight, rather blunt; colour yellowish brown, smooth, and shining; whorls 8½, rounded, including a protoconch of 1½ whorls, the last turn of which forms a small rounded tip; the lower has a simple groove round the periphery. The spire whorls are encircled by two strong grooves, one at the periphery and the other a little above the suture, and on the upper part by a slight depression; the intervening raised portions are somewhat flattened; aperture subquadrate; outer lip thin, dentated by the sculpture, which shows through the shell within the mouth; columella arched and reflexed; rounded anteriorly.

Length, 3.5 m.m.; breadth, 1 m.m.

Locality: Type from 40 fathoms three miles east of Schouten Island, with 18 others; and in 80 fathoms two examples.

An exceedingly minute Turritella, being in bulk less than half the size of T. smithiana. The sculpture curiously resembles that of Cingulina insignis found with it, and possibly the slight channeling of the mouth may yet place it with that genus.

CINGULINA INSIGNIS, N.S. (PL. XV., FIGS. 24 and 24a.)

Shell very long, narrow, subulate, smooth, glassy, white, clouded with yellowish brown; whorls flattened; 15 in number, including a brown coloured protoconch of three rounded whorls, the last narrowing to an upright point, which is very remarkable and characteristic; sutures well impressed; aperture subquadrate, with a strongly recurved, short, open canal; outer lip simple, very thin, dentated by the sculpture; columella deeply arched above, strongly convex below. Sculpture: Each adult whorl is divided by two narrow square-shaped grooves into three nearly equal flattened divisions; there is a third groove on the body whorl corresponding to the sutures; fine raised growth lines are visible in the lower grooves.

Length, 11.5 m.m.; breadth, 2.8 m.m.

Locality: Type from 40 fathoms three miles east of Schouten Island, with 20 others; also from 100 fathoms seven miles east of Cape Pillar several examples.

A very distinct species, with a remarkable apex. It seems a fairly common shell on our continental shelf.

TURBONILLA TIARA, N.S. (PL. XV., FIGS. 25, 25a, 25b).

Shell long, narrow, solid, yellowish, stained with purple; whorls 15, rounded; the apical portion is very remarkable, suggesting a turban or crown; the last turn is central, and very small, but the adult sculpture continues right over it. There are on the upper whorls about 10 and on the lower 12 strong, straight, rounded ribs, which follow each other regularly up the spire from suture to suture; they are parted by deep furrows of about equal width. The third whorl from the summit is partly smooth and inflated, but a cotype shows no sign of this. I have given a figure of the upper part of both type and cotype to show the difference. The ribs cease abruptly below the periphery of the body whorl, where there is a small keel; another keel encircles the centre of the base, which is smooth, and chestnut in colour; on the centre of the spire whorls is a small obscure spiral ridge, crossing the interspaces, but not seen on the ribs; aperture subquadrate; outer lip curved, varixed, bending back to form a distinct canal: inner lip concavely arched above, convex below.

Length, 9 m.m.; breadth, 2 m.m.

Locality: Type from 40 fathoms three miles east of Schouten Island, with one other juvenile; and in 100 fathoms seven miles east of Cape Pillar two fragments.

Easily separated from our other species by its remarkable apex.

EULIMA EXPANSILABRA, N.S. (PL. XV., FIG 26.)

Shell small, white, smooth, thin, tapering and slightly bent; whorls eight, rounded, the first minute, but increasing rapidly; body whorl inflated; suture well impressed; mouth large, angled above and below; outer lip roundly expanded; columella straightish, well reflexed.

Length, 3.5 m.m.; breadth, 1.5 m.m.

Locality: Type from 100 fathoms seven miles east of Cape Pillar; also from 40 and 80 fathoms east of Schouten Island four examples.

Remarkable for its small spire, large body whorl, and widely expanded mouth.

ACLIS COLUMNARIA, N.S. (PL. XV., FIG. 27.)

Shell small, conical, high, pure white, somewhat hyaline, smooth, and glossy; whorls six, rounded, but widest a little above the suture, which is well impressed; apex blunt and rounded; mouth oval, angled above, round below; outer lip thin and simple, inner lip roundly concave.

Under a high magnification numerous fine spiral grooves are seen on the whorls.

Operculum (in a cotype) light yellow, thin, ovate, pointed above, the nucleus near the middle of the base, with distinct V-shaped lines of growth above.

Length, 5 m.m.; breadth, 2 m.m.

Locality: Type from 100 fathoms seven miles east of Cape Pillar, with twelve others.

I have placed this with Aclis because of its stronglikeness to A. minutissima Watson from Torres Straits—Challenger Report. It is distinguished from that species by its immensely greater size and the rounded columella.

LIST OF SPECIES.

Marginella hedleyi Pl. XIII., Fig. 1
Marginella albomaculata Pl. XIII., Fig. 2
Marginella altilabra Pl. XIII., Fig. 3
Marginella gracilis Pl. XIII., Fig. 4
Marginella lodderæ Pl. XIII., Fig. 5
Marginella dentiens Pl. XIII., Fig. 6
Marginella vercoi Pl. XIII., Fig. 7
Marginella gatliffi
Marginella gabrieli Pl. XIII., Fig. 9
Marginella consobrina Pl. XIV., Fig. 10
Marginella connectans Pl. XIV., Fig. 11
Marginella indiscreta Pl. XIV., Fig. 12
Marginella microscopica Pl. XIV., Fig. 13
Pisania schoutanica Pl. XIV., Fig. 14 and 14a
Hemipleurotoma esperanza Pl. XIV., Fig. 15
Hemipleurotoma tasmanica Pl. XIV., Fig. 16
Drilla schoutanica Pl. XIV., Fig. 17
Drillia subviridis Pl. XIV., Fig. 18
Mangilia schoutenensis Pl. XV., Fig. 19
Daphnella pagoda Pl. XV., Fig. 20
Mitromorpha multicostata Pl. XV., Fig. 21
Mitoromorpha solida Pl. XV., Fig. 22
Turritella microscopica Pl. XV., Fig. 23
Cingulina insignis Pl. XV., Fig. 24 and 24a
Turbonilla tiara Pl. XV., Fig. 25, 25a, 25b
Eulima expansilabra Pl. XV., Fig. 26
Aclis columnaria Pl. XV., Fig. 27





