MOLLUSCA OF SOUTH AFRICA

BY

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Since writing my short paper, published in "Marine Investigations of South Africa," 1902, a quantity of additional material has come to hand, which I have carefully examined. Most of the Mollusca I have identified, a large proportion needing no special comment. The 25 species herein described I believe to be new to science; and following these descriptions I have appended notes on a few species little known, of special interest, or hitherto inadequately described, giving figures in the accompanying plates of such as have not hitherto been figured. In recording the results of my investigations, I have gratefully to acknowledge the valuable assistance of Messrs. S. Pace, E. A. Smith, and E. R. Sykes.

Mr. Pace has examined the animal and radula of *Sipho pyrrhostoma* of Watson, finding that it does not belong to the *Fusidæ*, but to the *Volutidæ*, so that I have placed it in my genus *Neptuneopsis*, of which *N. Gilchristi* is the type.

The soft parts of some of the other species are still reserved for examination, and will be reported on later.

New Species.

PLEUROTOMA (SURCULA) LOBATA (Plate IV., fig. 9). Shell elongately fusiform, posterior long, anterior short, yellowish white. Spire elongately turreted, slightly convex at the sides whorls 10; slightly angular, ornamented at the angle by a row of small rounded prominent tubercles, numbering 13 on the penultimate whorl; a sharpish keel borders the whorls at the upper part, between which and the angle a faint thread-like ridge is discernible. Last whorl shorter than the spire, with a double keel below the periphery which terminates in a remarkable deflexed tube-like projection, forming a lobe to the aperture; base conspicuously lirate; rostrum short, slightly recurved. Aperture moderate; columella rather straight above, slightly tortuous at the base, covered with a thin, smooth laminar callus; outer lip thin, with a broad shallow sinus at the posterior angle, in addi-

tion to the before-mentioned lobe which forms a curious anterior sinus. Canal short, rather wide. Length 31 ; width 11 millim.

Hab. :—Cape Natal bearing N. by E. ; distant 24 miles ; depth, 440 fathoms. Bottom, mud. Also (dead shells) Buffalo River, bearing North ; distant, 15 miles ; depth, 310 fathoms.

This remarkable shell is characterised by the double keel of the anterior angle becoming merged towards the finish of the last whorl, so as to form an almost tube-like process projecting from the aperture. This is present in all the adult specimens I have seen, but it varies in length and position, in some cases lying further back, and terminating before quite reaching the edge of the aperture. The shell bears some resemblance to *Pleurotoma congener*, Smith (Annals and Magazine of Natural History, 1894, Vol. IV., page 160, plate III., figs. 4 and 5), some specimens of which show indications of the above-mentioned character, but irregularly and in a less marked degree, so that it is not mentioned in Smith's description. The two species are however no doubt specifically distinct.

PLEUROTOMA (DRILLIA) FOSSATA (Plate III., fig. 5). Shell fusiform, acuminated at both ends, pale fulvous, obscurely spotted with brown, here and there tinged with light purple, and coloured anteriorly with a purplish band. Spire acute, gradately turreted ; whorls 8, the first two smooth, rounded, forming a papillary apex, the third angular and ribbed below the angle, the rest deeply concave at the top, the concavity being bordered by a sharp erect keel, below which the whorls are slightly convex, with short very oblique plicæ, and about 5 spiral liræ which are sharply angular at the top and slopingly compressed on the under side. Last whorl about equal in length to the spire, slightly convex above, and tapering to the base ; the oblique plicæ against the keel become almost obsolete on the latter half of the whorl, while the spiral liræ numbering about 22 are quite as deep and broad as those on the upper whorls. Aperture oblong, moderately wide, without any definite anterior canal ; outer lip thin, with rather a broad sinus at the juncture of the whorl.

Length 22 ; width 7 millim.

Hab. :—Cape Vidal (Natal) bearing N.N.E., $\frac{1}{4}$ N. ; distant $9\frac{1}{2}$ miles ; depth, 80 to 100 fathoms. Bottom, rock.

A shell of a very distinct character, quite unlike any other known species. The sharp erect keel at the top of the whorls, the broad channel between this and the suture, and the numerous curiously sloping spira liræ throughout, are its chief characteristics.

PLEUROTOMA (DRILLIA) SCITECOSTATA (Plate IV., fig. 10). Shell fusiform, acuminated at both ends, light brown colour with-

out markings. Spire acutely turreted; whorls 8, apical ones smooth rounded oblique, the rest deeply and smoothly concave at the top, then slightly convex, furnished with numerous oblique rounded smooth close-set ribs, the ribs terminating in a well-defined angle at the top. Last whorl about equal in length to the spire, slightly convex above and tapering below; spirally lirate towards the base, scarcely rostrate. Aperture oblong, interior smooth, brown; columella rather straight; lip thin, arched, with a moderate posterior sinus situated close to the suture.

Length 20; width 7 millim.

Hab.:—Glendower Beacon (near Port Alfred) bearing N. ¼ W.; distant 21 miles; depth, 100 fathoms. Bottom, sand and stones.

An elegantly formed and sculptured shell, somewhat resembling *P. harpularia*, Desmoulins, but more fusiform, and without the prominent sutural ridge characteristic of that species.

PLEUROTOMA (CLAVATULA) TURRIPLANA (Plate III., fig. 6). Shell elongately turreted, light brown, with a whitish band in the middle of the whorls. Spire long, acutely turreted; whorls 12; the first two smooth, rounded, forming a somewhat prominent white papillary apex; the rest slopingly convex, slightly impressed below the suture, spirally faintly grooved, obliquely obscurely plicated. Last whorl about 2.5ths of the entire length of the shell, convex above, attenuated towards the base, scarcely rostrate, nearly smooth, spiral grooves (only visible with a lens) irregular and broken up, oblique wrinkles almost obsolete. Aperture rather long, moderately wide; interior tinged with pale pink; columella white, rather straight, very slightly flexuose; outer lip sharp, with a broad posterior sinus, situated between the angle and the suture.

Length 42; width 11 millim.

Hab.:—Cape St. Blaize bearing N. by E. ¼ E.; distant 65 miles; depth, 85-90 fathoms.

Only one adult and one young specimen. An unusually smooth shell for one of this genus, with a long spire. The specimen having no operculum, I am unable to say with certainty that it belongs to the sub-genus *Clavatula*, but judging from the protoconch and the general appearance of the shell there is scarcely room to doubt it.

PLEUROTOMA (CLAVUS) LIGNARIA (Plate III., fig. 4). Shell irregularly fusiform, pallid, without colour markings, obtusely angular, posterior acuminated, anterior rather obliquely subconical. Spire rather long, acute; whorls 10½, the first two smooth, rounded, forming a papillary apex; the next two slightly convex,, nearly smooth, the rest with the upper half slightly con-

cave, with a rounded slightly tubercular ridge just below the suture; the lower rather convex, furnished with a row of oblong nodules, or short stout costæ (9 on the penultimate whorl); very finely spirally striated throughout. Last whorl about equal in length to the spire, obtusely angled; left side obliquely sloping, right rather convex; no rostrum; the nodules at the angles are produced downwards so as to form slightly oblique stout rounded ribs. Aperture rather short; columella nearly straight, covered by a thin callus which is somewhat thickened above; outer lip slightly arcuate, anterior canal very short, posterior sinus deep and moderately wide, situated at the angle of the whorl.

Length 22; width at angle 9 millim.

Hab.:—Lion's Head bearing N. 67° E.; distant 25 miles; depth, 136 fathoms.

This shell presents the slight obliquity of form prevailing in the sub-genus or section *Clavus*. It is singularly destitute of colour markings, and does not bear a striking resemblance to any known species, but perhaps its nearest ally is *P. Edithæ*, Sowerby.

PLEUROTOMA (GENOTIA) BELÆFORMIS (Plate IV., fig 8). Shell broadly fusiform, acuminately conical at both ends, whitish. Whorls $6\frac{1}{2}$, slightly convex, obtusely angled above, with a punctured groove a little below the suture; obliquely irregularly wrinkled, spirally striated. Last whorl about three-fifths of the entire length of the shell, rather inflated above, tapering below, without rostrum; spiral striæ numerous and close, oblique wrinkles almost obsolete. Aperture rather wide in the middle, interior white, columella slightly twisted, outer lip sharp, with a broad posterior sinus.

Length 22; width 9 millim.

Hab.:—Vasco de Gama Pk. bearing N. 71° E.; distant $18\frac{1}{2}$ miles; depth, 230 fathoms.

A shell of simple character, having somewhat the aspect of a northern form of *Bela*.

MANGILIA (EUCYTHARA) AFRICANA (Plate V., fig. 9). Shell fusiform, acuminated at both ends, obtusely angled in the middle, somewhat obscurely banded with light and dark brown, with narrow whitish interstices, dark purplish brown between the angle and the suture. Spire rather long, acute; whorls 7, angularly convex, finely spirally striated throughout, longitudinally regularly ribbed, ribs narrow, rather distant (12 on the penultimate whorl). Last whorl longer than the spire, angular above, then slightly convex, attenuated towards the base, terminating in a short narrow slightly recurved rostrum. Aperture long, rather wide in the middle, and narrower at each end; interior closely plicated, dark

brown with a whitish median band; columella rather straight recurved at the base, furnished with numerous small plicæ; outer lip sharp at the edge, externally thickened by a stout rounded varix; posterior sinus shallow, but rather wide.

Length 20; width 7 millim.

Hab.:—Umhloti River Mouth bearing N.W. by W. $\frac{3}{4}$ W.; distant $2\frac{3}{4}$ miles; depth, 25 fathoms.

This shell somewhat resembles *C. funiculata*, Reeve, but it is less sharply angled, the sides being more convex.

CONUS EUCORONATUS (Plate III., fig. 9). Shell rather solid, angular, whitish, profusely spotted with light brown, banded with three more or less interrupted zones of dark brown. Spire conical, rather elevated, coronated; whorls 9, angular; above the angle concave, rugosely plicated, and furnished with a single narrow ridge; at the angle ornamented with numerous white rounded bead-like nodules, numbering 26 on the last, and 23 on the penultimate whorl. Last whorl scarcely convex, regularly tapering from the angle to the base; spirally deeply grooved, and longitudinally closely plicated throughout. Aperture of average width, with a rather deep posterior sinus.

Length 45; width 34 millim.

Operculum very small (5 x $1\frac{1}{4}$ millim), regularly oblong, laminated, nucleus at the anterior extremity.

Hab.:—Cape St. Blaize bearing N. 85° W.; distant $4\frac{1}{2}$ miles; depth, 27 fathoms. Bottom, sand.

A handsome shell, belonging to the *Asprella* group, but quite unlike any hitherto known species. A second specimen (obtained on Natal coast, Cape Natal bearing W. $\frac{3}{4}$ N.; distant $12\frac{1}{2}$ miles; in 85 fathoms) is paler in colour, and of even rougher sculpture.

CONUS GILCHRISTI (Plate III., fig 8). Shell moderately solid, rather broadly sub-cylindrical, white, coloured with irregular brown streaks and blotches of various forms, interspersed with small spots, etc.; covered with a thin transparent periostracum. Spire very little raised, acute at the apex; whorls 9; slightly concave, with growth lines but no spiral sculpture. Last whorl rounded at the angle, sides nearly straight, obscurely lirate at the base. Aperture moderate, lip simple, with a rather deep posterior sinus.

Length 21; width 27 millim.

Hab.:—Umhlangakulu River Mouth (Natal) bearing N.W. by N.; distant $7\frac{1}{2}$ miles; depth, 50 fathoms. Bottom, sand and shells. (A single specimen in perfect condition.)

In general appearance this shell is something like *C. Characteristicus*, Chemnitz, but its form is narrow and more cylindrical, and the whorls of the spire are not grooved as in that species.

CONUS PATENS (Plate III., fig. 7). Shell thin, light, elongately pyriform, white, with a few very faint fulvous markings a little above the middle of the body whorl; covered by a rough and scabrous but light coloured periostracum. Spire moderately elevated, acute, graduated; whorls 8, concave, keeled at the angle, without spiral sculpture. Last whorl slightly convex, tapering towards the base; with slightly waved growth lines, and very faint spiral liræ visible only in parts and under the lens; the liræ at the base are scarcely more apparent than those on the other parts of the shell. Aperture rather wide, the posterior end a little narrower; outer lip thin and simple, with a deep, rather broad posterior sinus.

Length 68; width 35 millim.

Operculum remarkably small for the size of the shell (6 by $2\frac{1}{2}$ millim.) laminar, slightly scabrous, not regularly oblong, but expanded on the right anterior side, with the nucleus inclining to the left.

Hab.:—Vasco de Gama Pk. bearing N. 10° E.; distant 13 miles; depth, 85 fathoms. Bottom, green sand. Only one full-sized specimen obtained; but several much smaller ones were taken at different stations.

This shell bears some resemblance to *C. fulvocinctus*, Crosse, but it is of a lighter substance, and destitute of the basal liræ which are somewhat prominent in that species.

CYPRÆA FULTONI (Plate IV., fig. 7). Shell depressly pyriform, with a slight angularity at the sides near the posterior end, produced by a tubercle or swelling on each side; extremities slightly produced; pale fulvous variously marked with brown streaks and spots, suffused with dark brown at each end, and ornamented with numerous rather large dark brown spots at the sides partly extending over the base; beaks at the posterior extremity rather wide apart, surmounted by a thick brown callus, completely hiding the apical whorls; beaks at the anterior extremity closer together and slightly incurved; back rather depressly rounded, obliquely sloping in front; base slightly convex. Aperture of moderate width, with a prominent plait at the base of the columella; teeth on the left side of the aperture 11, the anterior ones being thick and short, the rest narrower and irregularly placed; on the right side 18, more regular, extending partly across the base, and leaving brown stripes where they become obsolete.

Length 60; width 39; height 29 millim.

Hab.:—South Africa.

Only a single dead specimen of this striking new species has yet been found. The package in which it came was broken in transit, and the number referring to the locality lost.

The dorsal aspect of the shell is somewhat similar to that of *C. leucostoma*, but it is larger, and the base is entirely different.

NASSA DESMOULIOIDES (Plate IV., fig. 1). Shell sub-ovate, anterior rounded, posterior conical, whitish, stained and irregularly streaked with brown. Spire acutely conical; whorls 8, the first 2 smooth polished and regular, the rest convex, rounded, spirally closely lirate, and longitudinally ribbed, the ribs being rounded, and about the same width as the interstices, numbering 10 on the penultimate whorl; the spiral liræ (7 in number) are also rounded and close, becoming here and there slightly nodulous on crossing the ribs; suture concavely impressed. Last whorl roundly inflated, the longitudinal ribs becoming irregular and obsolete, while the spirals (numbering about 16) are rather more distinctly nodulous; the very short rostrum at the base is somewhat tortuous, and distinctly lirate; it is defined by a distinctly channeled groove separating it from the rest of the whorl. Aperture sub-ovate; columella covered by a thin callus, slightly spread upon the middle of the whorl and forming an erect wall at the side of the umbilical region, with a rather prominent obliquely curved plica at the base; outer lip crenulated at the margin, lirate within; canal very short, recurved.

Length 21; width 13 millim.

Operculum thin, corneous, oblong, triangular, serrated with 5 projecting cusps on the right and two on the left side.

Hab.:—Umhloti River Mouth (Natal) bearing N.W. $\frac{1}{2}$ W.; distant $15\frac{1}{2}$ miles; depth, 100 fathoms. Bottom, sand and shells.

A pretty shell, having somewhat the form and appearance of a *Desmoulea*.

NASSA ANALOGICA (Plate IV., fig. 3). Shell oblong-ovate, yellowish white, banded with light brown. Spire acutely conical, rather long; whorls 7, slightly convex, spirally regularly grooved, grooves 6 in the penultimate whorl, intervals flat. Last whorl about $\frac{2}{3}$ the entire length of the shell, slightly inflated. Aperture ovate, slightly expanded towards the front; interior tinged with pale violet, smooth; outer lip simple, very little thickened; columella arched, with a sharp twist at the base, covered with a thin, glossy, transparent callus.

Length 19; width 10 millim.

Operculum thin, horny, irregularly triagonal, with the nucleus at the anterior extremity, inclining towards the left.

Hab.:—Cape Infanta bearing N. $\frac{3}{4}$ E.; distant $6\frac{1}{2}$ miles; depth, 40 fathoms. Bottom, mud.

This species is nearly allied to *N. trifasciata*, A. Adams (Plate IV., fig. 2), but the difference in form, as shown by the figures,

appears to be constant; the latter is more fusiform, and has a narrower aperture; its spire is longer in proportion to the body whorl, and generally more or less plicated; while all the numerous specimens of *N. analogica* I have before me are smooth, excepting for the spiral grooves. These differences may appear to be merely varietal, but the comparison of a large number of specimens shows that they are singularly persistent, and the two forms when separated show very little variation.

CANCELLARIA PRODUCTA (Plate IV., fig. 5). Shell elongately acuminated, very pale buff colour. Spire narrowly pyramidal; whorls $7\frac{1}{2}$, the first $2\frac{1}{2}$ rounded, smooth, shining, regular, the rest convex, latticed by numerous spiral liræ, and longitudinal ribs; the spirals (6 or 7 on the penultimate whorl) form little nodules in crossing the ribs, some of which are spinously raised in proximity to the suture; suture rather deeply channelled. Last whorl a little longer than the spire, closely cancellated throughout. Aperture sub-ovate, rather small; columella nearly straight, with 3 oblique nearly equal plicæ; outer lips sharp at the edge, and slightly thickened by the external rib.

Length 17; width 7 millim.

Hab.:—Off Umhloti River Mouth (Natal); depth, 40 fathoms (two specimens only).

This shell resembles in form some of the species of the genus Phos.

EPIDROMUS CREBRILIRATUS (Plate IV., fig. 4). Shell narrowly oblong, fulvous, faintly banded and variegated with brown, pearly white at the apex. Spire elongately acuminated, slightly convex at the sides; whorls $5\frac{1}{2}$, the first $1\frac{1}{2}$ smooth and shining, the rest rather convex, irregularly plicate and varicose; spirally finely grooved; suture scarcely impressed. Last whorl oblong, rather straight sided, with a very short rostrum at the base. Aperture rather wide in the middle, and narrow at each end; columella covered with a thin white callus standing erect over the umbilical region, slightly and irregularly pustulate; canal short, narrow, slightly recurved.

Length 13; width 5 millim.

Hab.:—Glendower Beacon (near Port Alfred) bearing N. $\frac{1}{2}$ W.; distant 21 miles; depth, 100 fathoms. Bottom, sand and stone. (Two specimens only.)

Somewhat resembling a small form of *E. lanceolatus*, Menke, but quite different in sculpture.

SCALA TENEBROSA (Plate IV., fig. 6). Shell elongately turreted, dark brown, with ribs of a somewhat lighter colour. Spire

long, acute; whorls 9, rather squarely convex, without spiral sculpture, rather slopingly and narrowly tabulated at the top; ribs numerous, about 20 on the penultimate, and 14 on the last whorl, moderately thick, and very slightly reflexed, with short angular spines at the angle. Last whorl short, rounded, without basal ridge, and with the umbilicus nearly closed. Aperture roundly oval; interior brown; peristome rather thick, smooth, slightly expanded and reflexed at the left anterior side, the posterior angle produced into a short angular spine.

Length 15; width 6 millim.

Hab.:—Cape St. Blaize bearing N.; distant $7\frac{1}{2}$ miles; depth, 37 fathoms. Bottom, fine sand. Also, Lat. 34° 7' S., Long. 25° 43' 30" E.; depth, 55 fathoms. Bottom, rock.

Only two specimens of this species were taken, one in each of the localities indicated.

The shell is somewhat similar in form to *S. aculeata*, but with more angular whorls. The brown colour is rather unusual.

ASTRALIUM (CYCLOCANTHA) GILCHRISTI (Plate V., fig. 6). Shell trochiform, slightly iridescent, the nacre being partly visible on the surface through the very thin covering, promiscuously spotted with reddish brown. Spire regularly conical, moderately high; whorls 6, sloping, scarcely convex, angularly keeled above and below, ornamented with rather close-set rows of bead-like pustules (6 on the penultimate whorl), interstices obliquely roughly plicate on the penultimate and last whorls; concavely channelled below the suture, the channel obliquely plicated. Last whorl with the peripherial angle armed with 16 hollow angular spine-like scales; angled below the periphery with a narrow slightly-raised keel, which is furnished with numerous very short scales; between the two angles are two or three rows of pustules, and beneath the second angle the base is slightly flattened and furnished with 6 rows of pustules or beaded ridges. The whole of the base is closely plicately laminated. Umbilicus completly closed by a thick white callus. Aperture oblique, rounded, width slightly exceeding the length; columella obliquely arcuate, covered with a thick smooth white callus; outer lip thin at the edge, interior smooth, silvery.

Operculum sub-circular, very thick, convex outside, white, very faintly granulose, with a very narrow groove at the outer margin.

Length $27\frac{1}{2}$; width 29 millim.

Hab.:—O'Neil Peak (Natal) bearing N.W. $\frac{1}{4}$ W.; distant $9\frac{1}{2}$ miles; depth, 90 fathoms. Bottom, broken shells. Also, Scottsburg Lighthouse (Natal) bearing N.W. by N.; distant 8 miles; depth, 92 fathoms. Bottom, sand and shells.

A strikingly beautiful shell, allied to *Turbo henicus*, Watson, from which it differs in detail, chiefly in the sutural channel, and in the more numerous scale-like spines at the periphery.

CALLIOSTOMA PERFRAGILE (Plate V., fig. 3). Shell trochiform, very thin, pale iridescent. Spire acutely conical; whorls 7, slightly convex, spirally ridged; ridges 9 on the penultimate whorl, rather narrow, the upper ones minutely granulated. Last whorl angled at the periphery, with a slight keel, which is articulated with rather distant oblong yellowish brown spots; base rather convex, faintly lirate near the margin, the liræ gradually becoming more prominent towards the centre. Aperture quadrangular, slightly oblique; columella very little curved, rather thick, truncated at the base.

Length 20; width 20 millim.

Hab.:—Vasco de Gama Pk. bearing S. 75° E.; distant $13\frac{1}{2}$ miles; depth, 166 fathoms. Also, Lion's Head bearing N. 63° E.; distant 34 miles; depth, 154 fathoms.

In form this shell resembles *C. ornatum*, Lamk., but it is remarkable for its very thin fragile substance.

CALLIOSTOMA (LISCHKEIA) GRANOLIRATUM (Plate V., fig. 7). Shell angularly conical, width and length nearly equal, white. Spire moderately elevated, almost flatly sloping; whorls 6, plicately laminated, the laminæ scarcely discernible on the upper whorls, become more distinct on the lower; ornamented with small erect, slightly angular nodules in three rows, the two upper rows being rather distant, while the lower, just above the suture, is almost close to the middle one, and has much smaller and closer nodules. Last whorl obtusely bi-angular at the periphery, the nodules becoming arched scales; base rather convex, with 4 prominent rounded liræ, and a fifth narrower one bordering the umbilicus. The liræ are obliquely plicated, so as to give them the resemblance of twisted cords. Umbilicus narrow, almost covered. Aperture irregularly sub-quadrate, about equal in width and length; columella margin covered with a thick duplicate callosity forming a ridge against the umbilicus, rather straight in the middle, obliquely arched at the base and continuous with the outer lip. Interior smooth, silvery.

Length 11; width $11\frac{1}{2}$ millim.

Operculum very thin, round, light, corneous, multispiral.

Hab.:—Cape Point, False Bay, bearing N.W. by W. $\frac{1}{2}$ W.; distant $7\frac{3}{4}$ miles; depth, 45 fathoms.

This beautiful little shell is very like a miniature of *C. moniliferum*, Lamarck (= *Alwinæ*, Lischke), to which Mr. Pilsbry gave the sub-generic name of Lischkeia

CALLIOSTOMA (ASTELE) IRIDESCENS (Plate V., fig. 4). Shell angularly conical, thin, yellowish iridescent, here and there blotched with brown, particularly at the angle. Spire rather high, acutely conical; whorls 7, upper ones densely granulated, the rest spirally lirate, liræ (6 on the penultimate whorl) flattened, and intersected by one or two shallow grooves, the upper one or two slightly granulated. Last whorl broad and short, slightly convex, sharply carinated at the periphery; liræ more numerous and less regular, thin and crowded in proximity to the angle; base flatly convex, closely spirally ridged, and transversely striated. Umbilicus deep, rather narrow, bordered by an arched, slightly-raised ridge. Aperture obliquely quadrangular, lateral angle rather acute; columella short, truncated, arched, callous, with a thin lamina projecting slightly over the umbilical orifice; outer lip thin, interior silvery.

Length 16; width 17 millim.

Hab.:—Cape Natal bearing N. $\frac{1}{2}$ W.; distant $4\frac{1}{2}$ miles; depth, 55 fathoms.

SOLARIELLA PERSCULPTA (Plate V., fig. 8). Shell angular, abbreviately conical, white, width greater than the length. Spire broadly conical, rather acute; whorls 5, the first smooth, the second slightly angular in the middle, closely longitudinally plicated, the rest concave at the top, then biangular, the upper angle being coronated with erect angular tubercles, the lower sharply carinated and very closely plicately laminated at the keel; below the keel is a deep concavity, bordering which at the suture of the penultimate whorl may be observed another narrow keel, bearing small angular tubercles or scales. Last whorl broad, rather compressed, with a prominent laminated keel at the periphery, the nodules on the upper angles becoming less prominent; base compressly convex, with four rather distant keels; umbilicus deep and round, of moderate width, nodulously plicate and lirate at the entrance. Aperture obliquely quadrangular; peristome, thin, continuous, with a sharpish angle on the right side, corresponding with the external keel.

Length 8; width 9 millim.

Hab.:—Cape Natal bearing N. by E.; distant 24 miles; depth, 440 fathoms. Bottom, sand. (Only two specimens found.)

MINOLIA (NACHÆROPLAX) CONGENER (Plate V., fig. 2). Shell rather depressly orbicular, smooth, shining, light yellowish, suffused with light brown, ornamented with waved zigzag and acutely angular light and dark brown streaks. Spire depressly conical; whorls $5\frac{1}{2}$ convex, moderately sloping, smooth, with only here and there very faint traces of obsolete spiral striæ; suture

rather deeply channelled; last whorl broad, convex above with small erect slightly angular nodules in three rows, the two rounded at the periphery, depressly convex at the base; umbilicus rather large, round and deep, bordered on the outer edge by an obtuse angle, a second angle appearing a little way within the orifice; the space between the two angles is slightly flattened, numerous very distinct close-set plicæ traverse this space, crossing the angles. Aperture rather large, peristome thin, columella margin straight, forming an angle where it joins the basal lip; outer lip sloping above, rounded at the base.

Length $9\frac{1}{2}$; width $15\frac{1}{2}$ millim.

Hab.:—Cape Infanta bearing N., $\frac{1}{4}$ W.; distant 82 miles; depth, 40 fathoms. Also Cape St. Blaize bearing N.; distant $7\frac{1}{2}$ miles; depth, 37 fathoms. Bottom, fine sand.

In general aspect, colour, and markings this shell closely resembles *M. lævissima*, Von Martens, from which it may be readily distinguished by the curiously distinct and crowded plicæ entering the umbilicus, which is smaller, and defined by a much more distinct angle.

The operculum is thin, concave, and multispiral, with a raised lamina at the suture of the whorls.

DENTALIUM INFLEXUM (Plate V., fig. 11). Shell rather narrow, much curved, considerably attenuated towards the apex, shining, fulvous, with irregular narrow bands of a darker colour, and slightly impressed growth lines; longitudinally very finely and closely striated, the striæ becoming gradually obsolete on the lower half of the shell.

Length 50; width at the aperture 4, and at the apex 1 millim.

Hab.:—Tugela River Mouth (Natal) bearing N.W. by W.; distant $3\frac{1}{2}$ miles; depth, 14 fathoms. Bottom, rock.

This shell differs from *D. longitrorsum*, Reeve, chiefly in being finely striated, and in having colour rings at irregular intervals, giving it an articulated appearance.

DENTALIUM AFRICANUM (Plate V., fig. 10). Shell rather stout, very little curved, white, with growth lines rather close, impressed, irregular, otherwise smooth; apical notch on the convex side, V shaped at the top, and descending in a rather narrow slit.

Length 46; width at aperture 5, at the apex $1\frac{1}{2}$ millim.

Hab.:—Red-topped Hill, W. of Untwalumi River (Natal) bearing N. by W.; distant 2 miles; depth, 25 fathoms. Bottom, broken shells.

The shell looks very like a large *D. entalis*, and forms a link between H. and A. Adams' sub-genus *Antalis* and Fischer's s.g. *Fissidentalium*. After a considerable study of the *Scaphopoda*,

I am inclined to ignore these sub-divisions as being insufficiently defined. The length of the slit not only varies considerably in different examples of the same species, but in some it is absent; the striation is also a very unreliable character. In *D. Africanum* some specimens show only the V shaped notch, others a short fissure below, while others again have quite a long fissure. I have selected an average one for the type. Some of the young specimens are striated towards the apex.

DENTALIUM EXASPERATUM (Plate V., fig. 12). Shell moderately solid, very little curved, rather wide at the base, and gradually tapering to the apex, pale yellow, longitudinally ribbed; principal ribs about 13, scabrous through the crossing of fine transverse laminæ, an intermediate much smaller rib between each, the interstices being cancellated by minute longitudinal ridges and fine transverse laminæ. Apical fissure on the convex side, about one-tenth the length of the shell.

Length 32; width at the aperture 5, and at the apex 1 millim.

Hab.:—Umvoti River Mouth (Natal) bearing N. by W. $\frac{1}{2}$ W.; distant $4\frac{1}{2}$ miles; depth, 27 fathoms. Bottom, sand and shells.

An example of the "*Fissidentalium*" group of a peculiarly scabrous character.

CHITON (HANLEYA) SYKESI (Plate V., fig. 13). Shell elongated, whitish, with the back much raised, and the sides sloping, scarcely convex; dorsal ridge rounded; throughout very finely granulose. Anterior valve crescent shaped, marked with concentric growth lines, but no radiating sculpture; insertion plate scarcely defined, unslit. Posterior valve with apex nearly central, raised, rather acute. Intermediate valves without insertion plates; obtusely beaked; lateral areas well defined, flattened, roughly marked with irregular concentric ridges and growth lines; central areas smooth, excepting for the fine granular sculpture which covers every part of the exterior of all the valves. Girdle very minutely spiculose.

Length about 22, width of central valve $7\frac{1}{2}$ millim.

Cape Point Lighthouse (False Bay) bearing E.; distant $26\frac{1}{2}$ miles; depth, 210 fathoms. Also Vasco de Gama Pk. bearing S. 75° E.; distant $13\frac{1}{2}$ miles; depth, 166 fathoms.

A careful examination of the valves and girdle of this species shows that it belongs to Gray's genus, *Hanleya*, which Pilsbry places in the Family *Lepidopleuridæ*. Malacologists are at liberty to use their own discretion as to the adoption of the numerous family and generic names proposed for the *Polyplacophora*, but for my part I very much question their utility, and prefer to call *Hanleya* a sub-genus of Chiton.

Notes on Species little known, inadequately described or hitherto unfigured.

NEPTUNEOPSIS PYRRHOSTOMA, Watson (Plate III., fig. 1). *Fusus (Sipho) pyrrhostoma*, Watson, Linn. Soc. Journal, Vol. xvi., p. 374.

The shell of this remarkable mollusk resembles in some respects that of *Sipho cretaceus*, Reeve. It is, however, far removed from that family, and through the kindness of Mr. S. Pace, who has examined the soft parts, I am able to state conclusively that it belongs to the *Volutidæ*. Mr. Pace says: "The sum of the characters of this interesting form leaves no doubt but what it should be referred to the volutoid series in the immediate neighbourhood of *Neptuneopsis*." At present I see no reason why it should not be included in that genus. Although a much smaller object there is nothing, conchologically speaking, to separate it generically from my *Neptuneopsis Gilchristi*; the structure of the head is practically the same; and, as in that species, the eyes are reddish, not black as are those of the majority of the Prosobranchs. The siphon has the lateral expansion met with in *Neptuneopsis*. The introvert apparatus is strongly developed, and in the retracted state it forms a large, almost globular mass. Two pairs of salivary glands are represented, and are of the characteristic Volutoid type. Leiblein's gland is enormously developed; it is of greater calibre than the œsophagus and occupies the major portion of the body-cavity, but its walls appear comparatively thin. The nervous system is typically Volutoid, and the supra-œsophageal ganglion is situated in close proximity to the nerve-ring.

The radula is uniserial; and the teeth in shape are rather intermediate between those of *N. Gilchristi* and *Cymbiola ancilla*.

VOLUTA (LYRIA) QUEKETTI, Smith. (Proc. Malac. Soc. Vol. IV., p. 234. Cape Natal bearing N. $\frac{1}{2}$ W.; distant $4\frac{1}{2}$ miles; depth, 27 fathoms. Also, O'Neil Pk. (Natal) bearing N.W. $\frac{1}{4}$ W.; distant $9\frac{1}{2}$ miles; depth, 90 fathoms; and Umhloti River Mouth (Natal) bearing N.N.W.; distant $\frac{1}{2}$ mile; depth, 27 fathoms. Very rare.

MARGINELLA DIADOCHUS, Adams and Reeve, Voy. Samarang, 28, plate 7, fig. 4, 1860. Cape St. Blaize bearing N. by E. $\frac{1}{4}$ E., distant 65 miles; depth, 85-90 fathoms, and 90-100 fathoms. The original specimens of this rare species were procured in the voyage of the "Samarang" in the straits of Sunda.

MARGINELLA FUSIFORMIS, Hinds, Proc. Zool. Soc., 1844. Nanquas Pk., East of Bird Is. (S.E. Coast), 49 fathoms. This species is reported by Hinds from the Straits of Malacca, and by Deshayes from the Island of Bourbon.

MITRA CYLINDRACEA, Reeve, Conch. Icon. (Mitra), sp. 97. A single specimen found $4\frac{1}{2}$ miles N. 85° W. off Cape St. Blaize, in 27 fathoms. *Mitra punctostriata*, A. Adams, appears to me to be the same species. I believe it to be distinct from *M. variabilis*, Reeve.

MITRA DÆDALA, Reeve. Conch. Icon. (Mitra), species 281, Scottsburgh Lighthouse (Natal) bearing N.W. by N.; distant 8 miles; depth, 92 fathoms. Dead shells.

MUREX FALLAX, Smith. Journal of Conchology, 1901, Vol. X., p. 113, pl. 1, fig. 9.

A good specimen of this fine species taken 8 miles South of Port Shepstone (Natal), in 36 fathoms.

MUREX AXICORNIS, Lamarck. Var?

Shell of a light buff colour with brown blotches; broader in form than the typical *M. axicornis*, with the frondose spines less curved. When more specimens come to hand, this may prove a distinct species. One adult specimen.—Umhloti River Mouth (Natal) bearing N. by W. $\frac{1}{2}$ W.; distant $8\frac{1}{2}$ miles; depth, 110 fathoms.

TROPHON CARDUUS, Broderip (Murex), Proc. Zool. Soc., 1832. A good specimen of this species was taken at Natal (Port Shepstone bearing N.W. by W.; distant, 11 miles) depth, 250 fathoms. This species was dredged by Mr. Cuming at Pasemayo, coast of Peru, at 25 fathoms; so that although very rarely met with, it is evidently very widely distributed.

FASCIOLARIA RUTILA, Watson (Plate III., fig. 2, young shell and radula), Linn. Soc. Journal, Vol. xiv., p. 335.

A fine perfect specimen of this interesting species was taken off Umhloti River Mouth, 40 fathoms. The young shell figured was taken with Lion's Head bearing N. 63° E.; distant 34 miles; depth, 154 fathoms. It has a very large protoconch, whereas that of the full-sized specimen is quite small. The radula is that of a true *Fasciolaria*, and a cursory examination of the animal shows that it is rightly placed in that genus, although the shell has much the look of a Sipho.

LATIRUS ABNORMIS, Sowerby, Journal of Conchology, Vol. vii., p. 6, 1894.—*L. imbricatus*, Sow., Marine Investigations of

South Africa, Page 96, Plate 2, fig. 1. The comparison of a number of specimens recently acquired by the British Museum has convinced me that the two supposed species are not separable. There is considerable discrepancy between my description of the species in the Journal of Conchology and the figure given in Marine Shells of South Africa," Plate VI., fig. 7 (Appendix, 1897), which may be accounted for by the fact that the shell described having been returned to its owner, I unfortunately figured a different specimen to represent the species; and neither of the two shells is now accessible to me.

FUSOS RUBROLINEATUS, Sowerby, Proc. Zool. Soc., 1870, page 252. Good but small specimens of this pretty species found 30 miles S. of Cape St. Blaize, in 53 fathoms.

LATIAXIS TORTILIS, A. Adams, Proc. Zool. Soc., 1863, p. 431. Vasco de Gama Pk. bearing S. 75° E.; distant $13\frac{1}{2}$ miles; depth, 166 fathoms. A single fine specimen. I cannot agree with Dr. Gray in referring this species to *L. idolea*, Jonas.

NASSA TRIFASCIATA, A. Adams (Plate IV. fig. 2).—*Nassa trifasciata*, A. Adams, Proc. Zool. Soc., 1851 (non Gmelin). I have compared the specimens taken off the South African Coast (Nanquas Pk. bearing N.E. $\frac{3}{4}$ N.; distant, $11\frac{1}{2}$ miles) depth, 58 fathoms; with those in the British Museum from Vigo Bay (including the type) and find them identical. The species is quite distinct from the Mediterranean, *N. corniculum*, Olivi, and *N. semistriata*, Brocchi. See remarks on *N. analogica*, Sow. n. sp.

PSEUDOLIVA ANCILLA, Hanley, Proc. Zool. Soc., 1859, p. 429. Sowerby, Marine Shells of South Africa, Plate 1, fig. 14. A single specimen in perfect condition taken at Lat. 34° 45′ 20″ S., Long. 25° 44′ 20″ E., 40 fathoms. (Bottom, mud.) The animal is under examination.

ANCILLA CONTUSA, Reeve (Plate III., fig 3). Red-topped Hill, W. of Untwalumi River (Natal), bearing N. by W.; distant 2 miles; depth, 25 fathoms. Also Illovo River Mouth (Natal), bearing N.W. by N. $\frac{3}{4}$ N.; distant 5 miles; depth, 27-30 fathoms. The specimens do not much resemble Reeves' type (Conch. icon., Ancillaria, sp. 31), which I find to be abnormal. I therefore figure what I believe to be the normal form of the species.

ANCILLA BULLOIDES, Reeve. Conch. Icon. Ancillaria, species 37. Lion's Head bearing S. 72° E.; distant 47 miles; depth, 190 fathoms. The habitat of this curiously Bullia-like species was not known to Reeve.

ANCILLA ANGUSTATA, Sowerby. Thes. Conch. Vol. 1, p. 399, plate 77, figs. 169, 170. Cape Point Lighthouse bearing N.W. by W. $\frac{3}{4}$ W.; distant $2\frac{1}{2}$ miles; depth, 42 fathoms.

TRITONIDEA NATALENSIS, Smith. Journal of Conchology, Vol. X., p. iii., pl. 1, fig. 23. *Tritonidea subrubiginosa*, Sow. (non Smith), Journ. of Conch, Vol. VII., p. 368.

Mr. Smith considers the shell I took for his *T. subrubiginosa* to be a different species. I adopt this view with some reserve, as some specimens recently received from Japan are distinguished by very slight differences from the S. African form.

ONISCIA MACANDREWI, Sowerby. Proc. Zool. Soc., 1888, page 567, Plate XXVII., figs. 1, 2.

Specimens of this rare and beautiful species taken off Natal Coast: O'Neil Pk.: bearing N.W. $\frac{1}{4}$ W.; distant $9\frac{1}{2}$ miles; depth, 90 fathoms; Port Shepstone bearing N.W. by W.; distant 11 miles; depth, 250 fathoms; and Cape St. Blaize bearing N. 85° W.; distant $4\frac{1}{2}$ miles; depth, 27 fathoms. The original specimens came from Japan.

NATICA SAGRAIANA, Orbigny. Var.

A light coloured variety, taken at Saldanha Bay, Vondeling Island bearing N. $\frac{1}{4}$ W.; distant $3\frac{1}{2}$ miles; depth, 28 fathoms. The species is evidently very widely distributed. Tryon quotes West Indies, Madeira, West Africa, and Mediterranean as its habitats.

VANIKORO CANCELLATA, Lamarck.

A single specimen. Rame Head (Natal) bearing W. by N. $\frac{1}{2}$ N.; distant 3 miles; depth, 43 fathoms.

PLEUROTOMA (CLAVATULA) GRAVIS, Hinds. Moll. Voy. Sulphur, page 16, pl. V., fig. 6.

Cape Infanta bearing N .by E. $\frac{1}{2}$ E.; distant 18 miles; depth, 47 fathoms; Pinnacle Pt. (West of Cape St. Blaize) bearing E. by S.; distant 3 miles; depth, 17 fathoms, etc.

Tryon (Man. of Conch., Vol. VI., p. 229) amalgamates this and several other totally distinct forms under the head of *Clavatula muricata*. He does not even call them varieties, but simply synonyms! This is quite too fanciful a *melange*; and it is difficult to conceive by what process or aberration of vision it has been reached. The forms are so manifestly distinct that it is quite unnecessary to go into detail. There are scarcely any two species of the same genus more utterly distinct than *C. gravis*, and *C. muricata*, as shown by Tryon's own figures.

CYPRÆA BARCLAYI, Reeve. Proc. Zool. Soc., 1857, p. 208, pl. 38, fig. 4.

Cape St. Blaize bearing N.; distant 30 miles; depth, 55 fathoms. (A single dead shell.)

The type of this species, hitherto believed unique in Miss Saul's collection (now in the Zoological Museum of Cambridge University) was dredged by Sir David Barclay off the Island of Diego Garcia. It is interesting to find a specimen, although a dead one, in South African waters.

CYPRÆA SIMILIS, Gray. Var.?

Nanquas Pk. bearing N. $\frac{3}{4}$ W.; distant $21\frac{1}{2}$ miles; depth, 63 fathoms. (One specimen.)

A peculiarly globose form, which may possibly represent a distinct species, but pending the arrival of other specimens, it is better to consider it a simple variety.

PEDICULARIA SICULA, Swainson.

94 miles off Cape St. Blaize, 116 fathoms.

A single specimen, identical in character with the Mediterranean shells, but rather larger than any I have seen.

TURRITELLA DECLIVIS, Adams and Reeve. Voy. Samarang, page 48, 1848.

Glendower Beacon (near Port Alfred) bearing N. $\frac{1}{2}$ W.; distant $16\frac{1}{2}$ miles; depth, 66 fathoms; Great Fish Pt. Lighthouse bearing N.W.; distant 9 miles; depth, 51 fathoms, etc.

CANCELLARIA IMBRICATA, Watson. Linn. Soc. Journal of Zoology, Vol. XVI., p. 325. Moll. Challenger Expedition.

A fine adult specimen, with peristome somewhat expanded. The shell is very like a large *Admete*, but the columella plaits are much more distinct.

ASTRALIUM ANDERSONI, Smith (Plate V., fig. 5).

Astralium (*Bolma*) *Andersoni*, Smith. Journal of Conchology, Vol. X., page 248, 1902.

Lat. 32° 45′ 45″ S., Long. 28° 26 15″ E., depth, 36 fathoms.

Two specimens, the largest 65 millimetres in width, and nearly 60 in height; the smallest 33 × 30. The large specimen (figured) has a prominent keel at the basal angle of the body whorl, which is armed with about 10 projecting, somewhat flattened scales. The operculum is nearly white, smooth, much thickened at the posterior end, and slightly concave in the middle. This can hardly belong to the "*Bolma*" section, of which *Tarbo rugosus*, Linn., is the type, as the character of its operculum is very different, but it probably belongs to the same

section as *T. modestus*, Reeve, which I think has been erroneously placed with *Bolma*. Mr. Smith's type is a young shell, measuring only 31 x 27 millimetres.

MINOLIA LÆVISSIMA, Martens. (Plate V., fig. 2).

Trochus lævissimus, Marts. Sitzungsh. Gesellsch. Naturf. Freunde, 1881, p. 65. *Nachæroplax lævissima*, Marts in Thiele, continuation Troschel's Gebiss and Schnecken.

Cape Natal bearing N. $\frac{1}{2}$ W.; distant $4\frac{1}{2}$ miles; depth, 55 fathoms.

Specimens rather larger than Von Martens' type, and differing therefrom in having well-defined colour flames on the base.

PUNCTURELLA NOACHINA, Linn.

Lion's Head bearing S. 82° E.; distant 27 miles; depth, 125 fathoms.

One shell only, in perfect condition.

DENTALIUM POLITUM, Linn.

Cape Natal bearing W. by N.; distant $6\frac{1}{2}$ miles; depth, 54 fathoms.

Numerous examples.

DENTALIUM BELCHERI, Sowerby. Thes. Conch. Vol. III., page 101, plate 224, figs. 28, 29.

Off Buffels Bay, 30 fathoms; Cape Point Lighthouse bearing W. $\frac{3}{4}$ S.; depth, 35 fathoms, etc.

DENTALIUM NOVEMCOSTATUM, Lamarck.

Cape St. Blaize bearing N. by E. $\frac{1}{4}$ E.; distant 65 miles; depth, 85—90 fathoms.

DENTALIUM PLURIFISSURATUM, Sowerby *(Schizodentalium)*. Proc. Malac. Soc. Vol. 1, page 158, plate 12, fig. 24, 1894.

Cape St .Blaize bearing N.E. by E. $\frac{1}{4}$ E.; distant 67 miles; depth, 90 to 100 fathoms, and N., 30 miles, 55 fathoms. In fine sand.

In my original description of *Schizodentalium plurifissuratum*, I remarked that the strange feature of a series of fissures on the convex side was subject to considerable variation; the type having 5 such fissures; mention being made of one with 4, and one with only 2. The South African specimens present such a remarkable variation in this respect that I can no longer consider it a generic character. Some of the shells before me, although undoubtedly belonging to one and the same species,

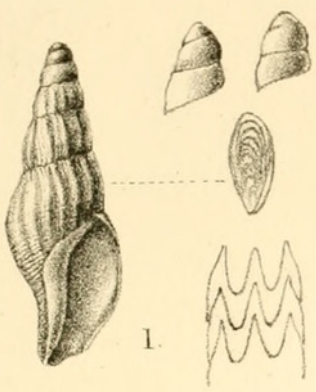
have only one or two slits or fissures, varying in length and width, while others have absolutely none. In my description of *D. Africanum* in this paper, I have remarked that the apical slit is a very unreliable character in distinguishing species of this genus. This is fully confirmed in the case of the species under consideration.

SCAPHANDER PUNCTO-STRIATUS, Mighels. Proc. Boston Soc. Nat. Hist. Vol. I., page 49, 1841.

Vasco de Gama Pk. bearing S. 75° E.; distant 13½ miles; depth, 166 fathoms; and Lion's Head N. 63° E., 34 miles, 154 fathoms.

A single specimen of this little species, taken at each of these stations. It has been found as far north as Iceland, and as far south as the Gulf of Mexico, but I believe it has never hitherto been found anywhere in the neighbourhood of South Africa. Pilsbry remarks (Man. of Conch., Vol. XV., p. 246) that this species inhabits comparatively shallow water in the north, but the southern localities are all for examples dredged in great depths. However it is interesting to note that much further south it is found again in what we may call *comparatively* shallow water; for although we may call 154 fathoms deep water, it is shallow compared with 533 fathoms, the depth at which the species was found in the Gulf of Mexico, and 1,000 fathoms, where it was dredged off the Azores.

[PUBLISHED 8TH JULY, 1903.]



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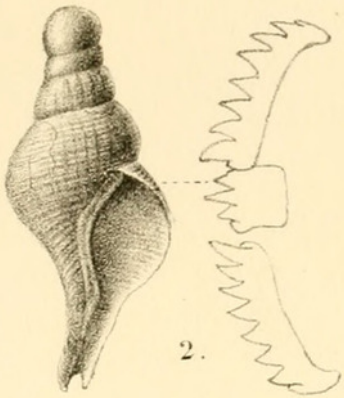

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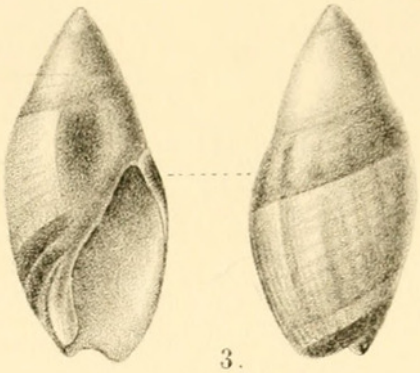

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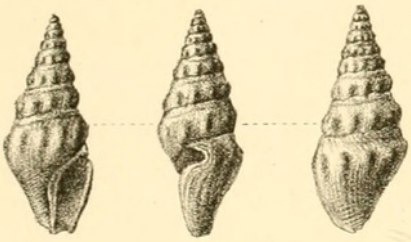

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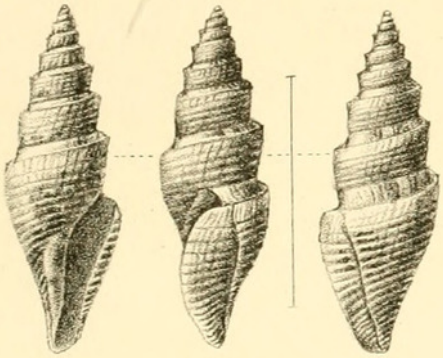

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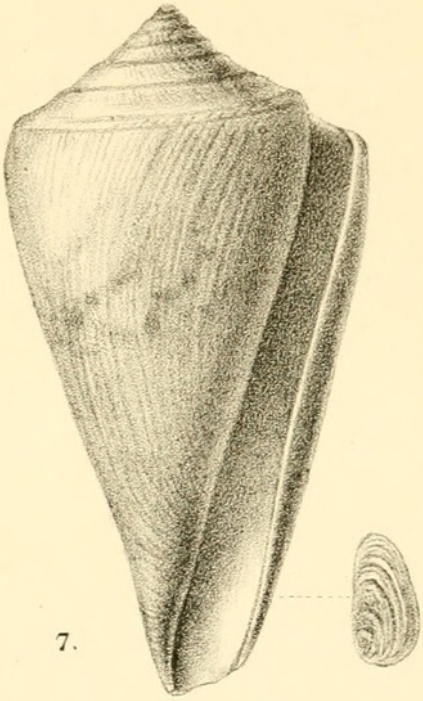

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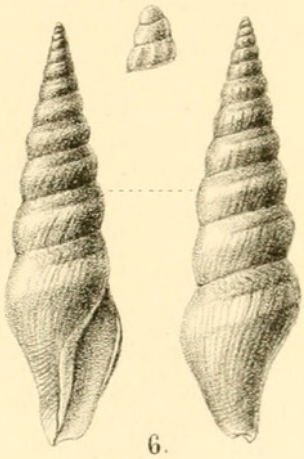

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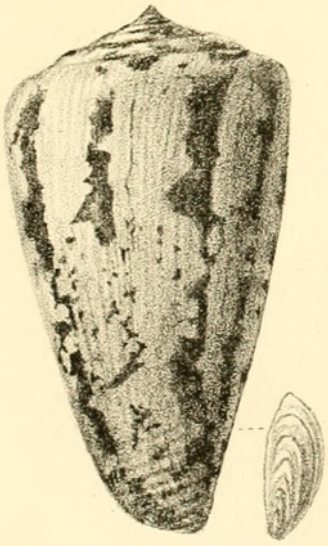

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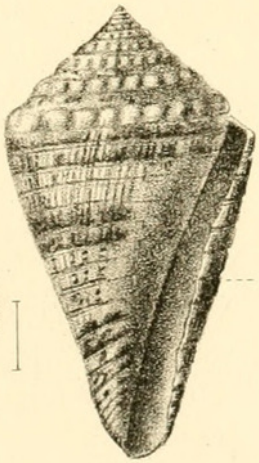

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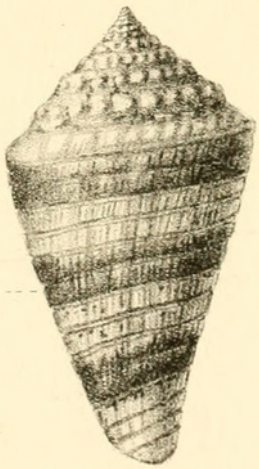

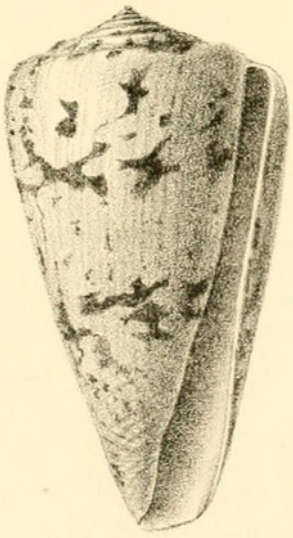

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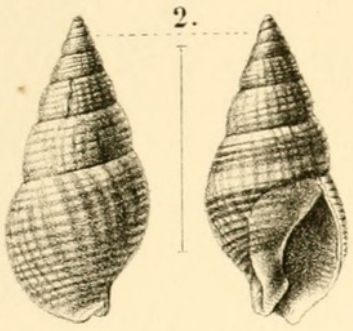
J.Green del.et lith. Mintern Bros.imp.

1. NEPTUNEOPSIS PYRRHOSTOMA. 4. PLEUROTOMA LIGNARIA. 7. CONUS PATENS.
2. FASCIOLARIA RUTILANS. 5. " FOSSATA. 8. " GILCHRISTI.
3. ANCILLA CONTUSA. 6. " TURRIPLANA. 9. " EUCORONATUS.



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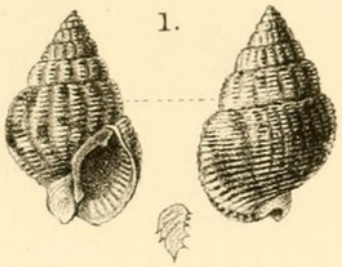

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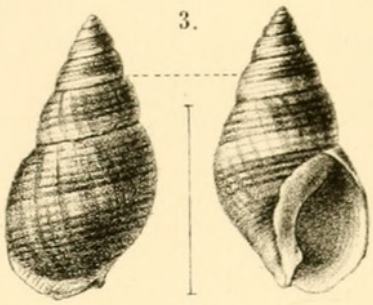

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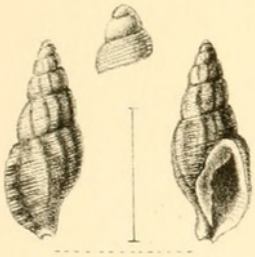

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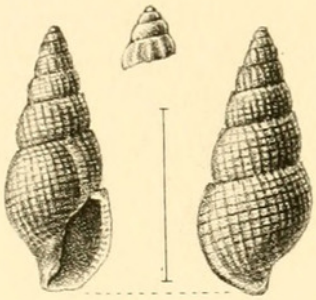

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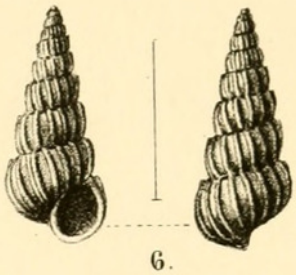

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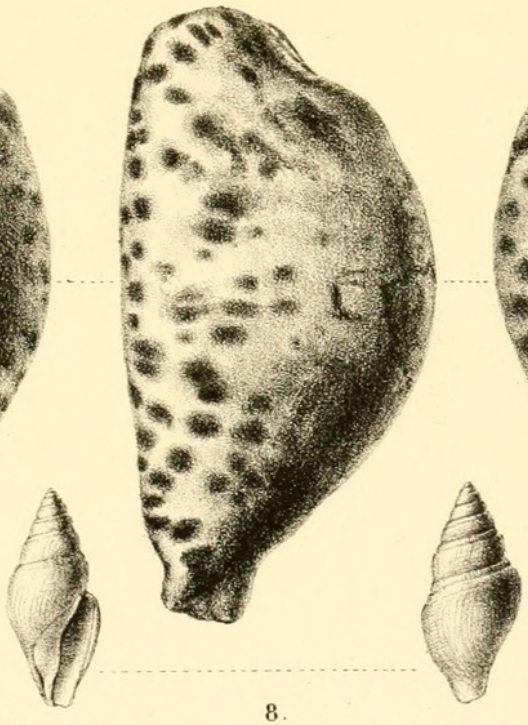

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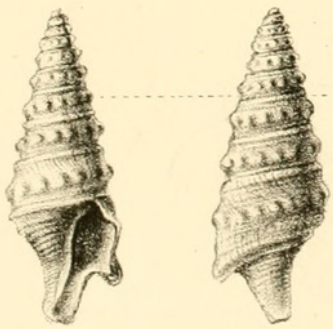

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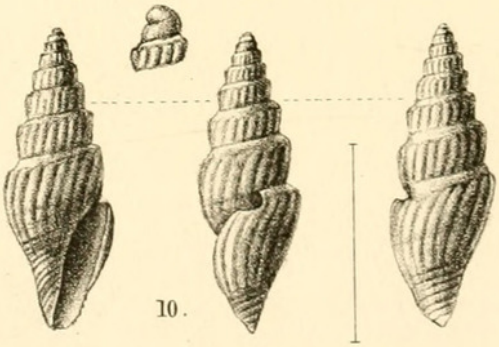

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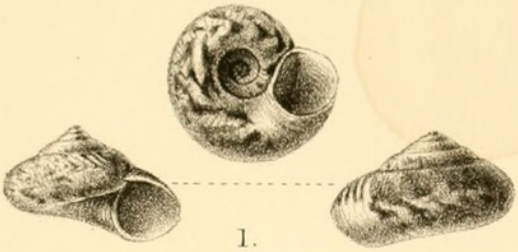
1. NASSA DESMOULIOIDES. 4. EPIDROMUS CREBRILIRATUS. 7. CYPRÆA FULTONI.
2. " TRIFASCIATA 5. CANCELLARIA PRODUCTA. 8. PLEUROTOMA BELÆFORMIS.
3. " ANALOGICA 6. SCALA TENEBROSA. 9. " LOBATA.
10. PLEUROTOMA SCITECOSTATA.



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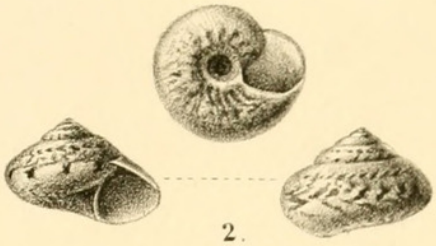

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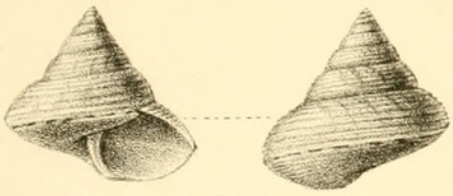

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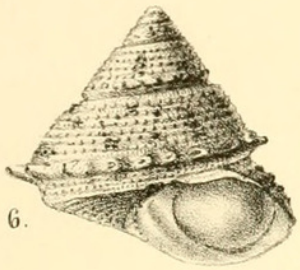

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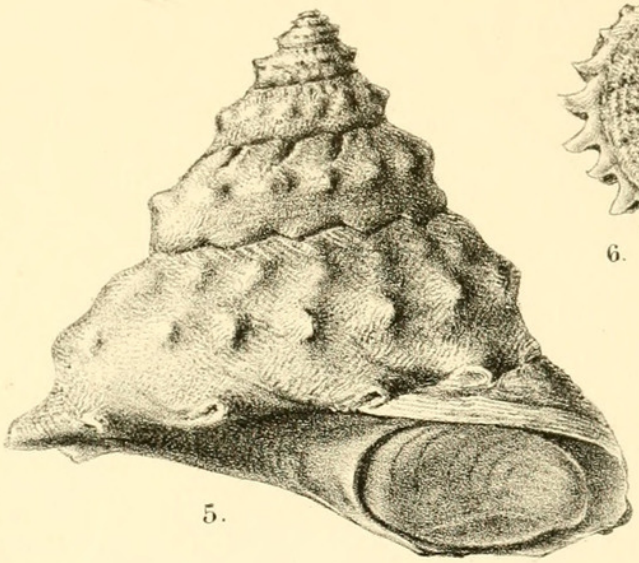

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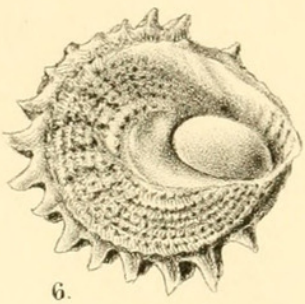

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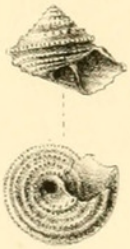

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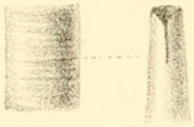

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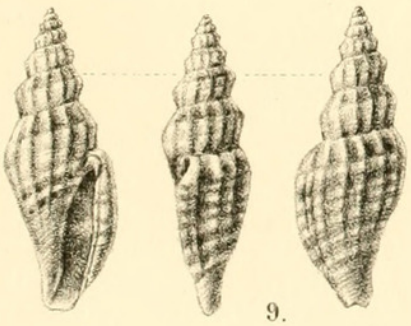

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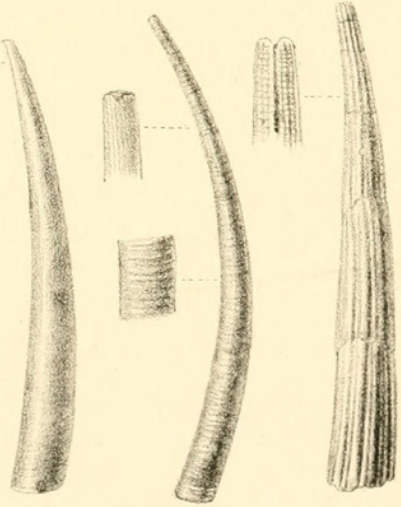

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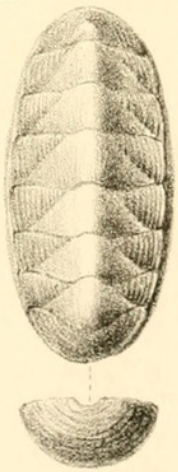

J.Green del. et lith. Mintern Bros. imp.

1. MINOLIA LÆVISSIMA.
2. " CONGENER.
3. CALLIOSTOMA PERFRAGILE.
4. " IRIDESCENS.
5. ASTRALIUM ANDERSONI.
6. ASTRALIUM GILCHRISTI.
7. CALLIOSTOMA GRANOLIRATUM.
8. SOLARIELLA PERSCULPTA.
9. MANGILIA AFRICANA.
10. DENTALIUM AFRICANUM.
11. " INFLEXUM.
12. " EXASPERATUM.
13. CHITON SYKESI.