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CONCHOLOGIA ICONICA:

OR,

ILLUSTRATIONS

OF THE

SHELLS OF MOLLUSCOUS ANIMALS.

VOL. III.

CONTAINING MONOGRAPHS OF THE GENERA

MUREX           MANGELIA           MONOCEROS
CYPRÆA           PURPURA           BULLIA
HALIOTIS         RICINULA           BUCCINUM

BY

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"What thanks sufficient, or what recompense
Equal, have I to render thee, divine
Historian, who thus vouchsafed
This friendly condescension to relate
Things else by me unsearchable; now heard
With wonder and delight."—Milton.

LONDON:
REEVE, BROTHERS, KING WILLIAM STREET, STRAND.
1845.
MONOGRAPH

OF THE GENUS

M U R E X.

"For Nature here
Wanton'd as in her prime, and play'd at will
Her virgin fancies, wild above rule or art."—Milton.
MUREX.

Genus Murex, Limneus.

Testa ovata vel oblonga, soppisiuferis, aut plus minus fusiformis, spirul subangulato-turriti; austractibus lectori ventricosis, varioceis, varicibus tribus pluribus, frondibus ruuosis vel foliatis vel spinosis ornatis; columella laciæ arcuata, in canale var breviissimam recurvum, vario longissimam tubulosam desineit; aperturæ suborbitiæ, lobo extero pleuratis dentiiculato ant cremato, dente unico prominente erecto infra medium internum armato. Operculum cornuæm.

Shell ovate or oblong, generally pyriform, or more or less fusiform, spire somewhat angularly turreted; whorls slightly ventricose, varicose, varices three or more in number, ornamented with branched, foliated, or spine of fronds; columella smooth, arched, ending in a canal which is sometimes very short and recurved, sometimes very long and tubulous; aperture nearly orbicular, outer lip generally denticated or cremated, and sometimes armed beneath the middle with an erect prominent tooth. Operculum horny.

The genus Murex, as at present constituted, contains but a very limited number of the species referred to it by its founder. After having been liberally dismembered by Bruguière and Lamarck for the formation of the genera Cerithium, Turbinella, Concellaria, Fasciolaria, Fusus, Pleurotomaria, and Pyramidula, there yet remained a considerable portion that were characterized by their different varieties of varicose growth; and of these Lamarck established the genera Ranella, Triton, and Murex. The first for the reception of the species in which exactly two varices are deposited on a whorl, the second for those having a smaller number, and the third for such as have a larger number. The genus therefore under consideration includes all the varicose Canuferous Gastropods which deposit a marginal varix at three or more intervals during every solution of increase round their columellar axis. As, in all arbitrary varieties of classification, however, there is great difficulty in determining the limit of the genus. The Murex, with numerous light and immaturely formed varices, is scarcely to be generically distinguished from the Fusus with its successive layers or ridges. The Mureces Magellanicum, salebrosum and Belcheri are of this anomalous character; although, I consider the last-mentioned species, described by Mr. Hinds in the 'Zoology of the Sulphur,' to present many more characters in common with those of Pyramidula than of Murex, and do not hesitate to refer it to that genus.

The Mureces are greatly distinguished by the ornamental and varied structure of the varices; and when it is considered what an impediment the numerous spines and frondose ramifications must offer to their revolving process of growth, it becomes interesting to notice in what manner this emergency is provided for. The animal inhabitant has the power of removing these obstacles to its growth by the use of a powerful solvent. In the Murex cornutus, for example, may be commonly observed, on the left of the upper portion of the columnella, the remains of a spine which has been abraded and removed at its base to make way for the approaching deposit of the increasing whorl.

The genus Murex has been so recently illustrated by Mr. Sowerby in his 'Conchological Illustrations,' and by M. Kuenz in his 'Iconographie des Coquilles vivantes,' that I have not many new species to be added; there are, however, some important errors to be emended in the works of both authors.

Species 1. (Mus. Cuming.)

Murex emarginatus. Mus. testa ovata, spirul brevissimul, acuminatul, suturis radiis, radiatis; austractibus semi, superne angulatis, levieeinulis, inter varices conspicue tumbculatis, transversim obsoletæ costulæ; trirarian varicosæ, varicibus obtusis-flabulistis, solidiosi
culæ; albidos, fervaisco-fuscosense tincet; lobo extero dente unico parvo, planulato, antice armato; canali brevi, etnato, oblique recurvo.

The emarginated Murex. Shell ovate, spire rather short, acuminate, sutures rude, waved; whorls six in number, angulated at the upper part, rather smooth, conspicuously tuberculated of the varices, transversely obsolescently ribbed; three-varicose, varices obtusely fimbriated, rather solid; whitish, stained with pale rusty brown; outer lip armed anteriorly with a single small flattened tooth; canal short, closed, obliquely recurved.


The entire surface of this shell has the appearance of being very minutely indented. The oblique turn of the canal is characteristic, and so also is the prominent development of the tubercles between the varices.

Species 2. (Mus. Cuming.)

Murex laciniatus. Mus. testa oblongo-ovata, subfusiformi, base versus contracta, spirul medio, suturis subapressis; austractibus semi, inter varices bitubculatis, transversim lepide, liris parvis, subcubicosis, distanteibus, tribus basalius fortioribus; trirarian varico
culæ, varicibus crebris crepisifoliatæ, foliis basem versus frondiformibus, subspinosis; rosacea-fuscosense.

April 1843.
varicibus costarico-maculatis, columna apice canalique parporro-roseis; aperture rotundata, labro externo crenulato.

The lanciated Murex. Shell oblong-ovate, somewhat fusiform, contracted towards the base, spire muddling, with the sutures somewhat impressed; whorls six in number, with two tubercles between each varix, transversely ridged, ridges small, somewhat sebrous, distant, the three basal ridges stronger than the rest; three-varicose, varices very closely crisply foliated, the foliations being front-like and somewhat spinous towards the base; pinkish brown, varices spotted with chestnut brown, columna apex and canal purple rose; aperture rounded, outer lip crenulated.

Sowerby, Crouchological Illustrations, f. 59.

Eadem. Murex scabrosus, Sowerby, Coneh. Illus. f. 73.

Hab. Island of Ticao, Philippines; Cuming.

This is a very interesting species; the varices appear to consist of a number of foliated laminae closely pressed together, and the ridges which on the body of the shell are very small, on the varices are developed with peculiar force. The three basal ridges are, however, much stronger throughout than any of the rest. Mr. Sowerby has erroneously described a mutilated example of his *Murex lancinatus* for a new species, under the name of *Murex scabrosus*.

Species 3. (Mus. Saul.)

**Murex ramosus.** *M. testa trigono-ovata, ventricosa, spirá brevissima, anfractibus semis, tuberculis pluribus inter varices armatis, transversis, obsolent tiritatis et cerberrum elevato-linearibus; tririam varicosas, varicos convaseo-frossidas, frossidas maximi, curcis, cauacticolatis, inciso-serratis; alba, fusca pallide nubolosa, linea transversis elevatis fuso, columna fabrique externo limbo rosacceo; canali breviscalo, planulato, recureo.

The branched Murex. Shell triangularly ovate, ventricose, spire rather short; whorls six in number, armed between the varices with several tubercles, transversely obsolescently ridged and elevated linedate; three-varicose, varices conspicuously frondose, fronds very large, curved, canaliculated, deeply serrated, white, faintly clouded with brown, transverse raised lines brown, columna edge of the outer lip rose-pink; canal rather short, flattened, recurved.

Linnaeus, Mus. Ludovicii Ulrici regn."

**Murex inflated, Lamarck.**

Hab. Eastern Seas.

Lamarck distinguished this large and well-known species by the new title of *Murex inflated*, because, judging from the various references which Linnaeus quoted in illustration of his *Murex ramosus* in the *Systema Nature*, he appeared to have confounded several species together. This is, however, without doubt, the shell he had under consideration; and the original name should be preserved, especially when we learn, upon the testimony of M. Deshayes, that in the "Mus. Lud. Ulrici regn." the references and synonymy are correct.

Species 4. (Mus. Cuming.)

**Murex triguerter.** *M. testa elongato-ovata, subfusiformis, spirá turrilatis; anfractibus semis, longitudinaliter plicatis, transversis, tiritatis, tiritatis, subfusiformis, bases versus rotundatus, impresso-striatis; tririam varicosas, varicos convaseo-frossidas, antice, propò ad canalem, egregi laminato-frossidas; alba, fusco tincta, fusce maculata et nubolosa; canali brevi.

The three-angled Murex. Shell elongately ovate, somewhat fusiform, spire turreted; whorls eight in number, longitudinally plicated, transversely ridged, ridges narrow, rather sharp, rounded towards the base, impressly striated; three-varicose, varices posteriorly obtusely rounded, anteriorly, near the canal, cainently laminately frondose; white, tinged with rose, spotted and clouded with brown; canal short.

Born, Mus. Cas. p. 291. pl. 11. f. 1, 2.

**Murex trigonius, Enc. Méth. ; Kiener.**

Hab. Philippine Islands; Cuming.

The *Mures triguerter* and *trigonius* are figured in the *Encyclopédie Méthodique* and in Kiener’s *Icon. Coq. viv.* one for the other, and vice versa.

Species 5. (Mus. Cuming.)

**Murex angulatus.** *M. testa ovata, subventricosa, spirá paræ, acuminata; anfractibus semis, transversis elevato-striatis, striis leviter scabrosis; octiriam varicosi, varicos convaseo-frossidas, frossidas maximi, subdistantibus, nigricante-fuscus, apice versus palliato; canali brevi.

The angular Murex. Shell ovate, rather ventricose, spire small, acuminate, whorls six in number, transversely elevated striate, striae scabrous; eight-varicose, varices regularly obtusely frondose, fronds erect, somewhat distant; dark brown, paler towards the apex; canal short.


In this species the varices are extremely variable, and when only few in number impart an angular structure to the shell; in one of the specimens before me, for example, in which there are only five varices on a whorl, it assumes the form of a pentagon.
MUREX.

PLATE II.

Species 6. (Mus. Taylor.)

Murex bipinnatus. Mur. testa elongato-fusiformi, spiræ acuminato-turritâ; anfractibus septenis, transversis eximii tiritis, et elevato-striatis, liris striis et interstiiis subtilissimi; sculpturae-crenulatis, anfractibus primis sensis tuberculato-nodosis, ultima trivarico, varicibus ultimis duobus pulcherrimis; nivéis, rosaceo tinctis, columellâ pallide roseâ; aperturâ parê, labri externi tingit minûtâ denticulato; canali taliusculo, subelongato.

The two-winged Murex. Shell elongately fusiform, spire acuminately turred; whors seven in number, transversely delicately ridged and elevatedly striated, ridges striae and interstices very finely scabrously crenulated, first six whors tuberculosely noduled, last whorl three-varicose, last two varices very beautifully finately winged; snowy white, tinged with rose, columnella pale rose; aperture small, edge of the outer lip minutely denticulated; canal rather broad, a little elongated.


Hab. — ?

I am much indebted to Mr. Taylor for the loan of this very interesting shell, and readily adopt a name which that gentleman kindly suggests, as indicating the peculiarity of there being no appearance of frill structure except upon the last two varices. The spire exhibits a mass of prominent nodules, each whorl taking the form of a heptagon with as many as seven on its circumference. In general form the Murex bipinnatus approaches the Murex clausus; it will, however, be observed on reference to that species that the detail of structure and sculpture is distinct throughout.

Species 7. (Mus. Cuming.)

Murex Monoceros. Mur. testâ subtrigono-ovalâ, spiræ brevissimâ, acutâ, sатурis impressis; anfractibus sensis, inter varices tuberculato-nodosis, transversis elevato-striatis, striis scabrosis; trifarium varicosâ, caricibus obtusos-rotundatis, nodiferis, posticâ antichë lactatis, albida, glauco-fuscocente tinctâ, aperturâ facie palliâ minimè purpurascente-roseâ; canali brevi; aperturâ ovalâ, labro intimâ fortiter tuberculato-dentata, tiâo minùtâ dentinulato, denticula uno aut pluribus conspicue erectis.

The Monoceros-like Murex. Shell somewhat triangularly ovate, spire rather short, sharp, with the sutures impressed; whors six in number, tuberculosely noduled between the varices, transversely elevatedly striated, striae scabrous; three-varicose, varices obtusely rounded, nodiferous, posteriorly and anteriorly laminated; whitish, stained with glaucous brown, interior of the aperture very faintly tinged with purple rose; canal short; aperture ovate, lip strongly tuberculosely toothed within, edge minutely denticulated, one or more of the teeth being conspicuously erect.


Murex Nuttallii? Conrad.

Hab. California.

The minute scabrous sculpture of this shell is very characteristic, and so is also the obtuse stunted tubercular structure of the varices. The marginal tooth is unusually prominent.

Species 8. (Mus. Cuming.)

Murex saxatilis. Mur. testâ subpyriformi, ventricosâ, spiræ medici, anfractibus transversis tiritis et elevato-striatis, striis subnodulatis et granosis; sejurious varicosâ, cariciis frondosis, frondibus posticis antichësque granibus simplexibus foliaceis, canaliculatis, erecto-curratis, mediis multâ breviâribus; fuscâ vel aurantiâro-brâdrâ, columellâ canaliculâ violettâ roseo-roboratibus, aperturâ fâce radiâtâ; canali compresso, recurvo.

The rock-inhabiting Murex. Shell somewhat pyriform, ventricose, spire middling; whors transversely ridged and elevatedly striated, striae slightly waved and granose; six-varicose, varices frondose, posterior and anterior fronds large, simple, foliaceous, canaliculated, curvingly curved, middle fronds much shorter; brown or orange-red, columnella and canal bright pinkish red, aperture radiated with the same colour; canal compressed, recurved.

Linnaeus, Syst. Nat. (Gmelin's edit.) p. 3529.

Hab. Eastern Seas.

The shell which I have selected for the illustration of this beautiful and well-known species, is one of the rich orange-red variety. The ordinary colour of the outer surface is a light fulvous brown.

April 1845.
Species 9. (Mus. Cuming.)

**Murex clavus.** *Mur. testá elongato-fusiformi, spirá trigono-turretā, squamos erecto-recurrens ad angulos apicum versus uncinares; anfractibus octonis, trigonis, labyrinthus, aut obsoletè turrītis et striatis, inter varices tuberculato-plicatīs; trivārīcos, varice ultimae marginali latissimī fungriato-pinnatīs; nivea, rosae, colunellā pallidāe roseā; canali subelongato; apertura parvi, labro externo denticulato.*

**The rudder Murex.** Shell elongately fusiform, spire triangularly turreted, armed at the angles towards the apex with erectly recurved hook-like scales; whorls eight in number, three-sided, smooth or obliquely ridged and striated, tubercularly plicated between the varices; three-varicose, the last marginal varix very broadly fungriately winged; snowy white, tinged with rose; canal rather elongated; aperture small, outer lip denticulated.

*Kiener, Icon. Coq. viv. p. 111. pl. 37. f. 2.*

*Murex uncinarus,* Sowerby (not of Lamarck).

*Hab. Island of Masbate, Philippines; Cuming.*

A characteristic figure of this remarkable species was published by Martini nearly seventy years since, in the *Conchylia Cabinet,* but no further illustration of it appeared until it was recently figured in the *Conchological Illustrations.* Mr. Sowerby there describes it as the *Murex uncinarus* of Lamarck, but as Mr. Kiener has since shown that species to be another and of very different character, I feel much pleasure in adopting his name. The error into which Mr. Sowerby had fallen was, no doubt, occasioned by Lamarck's referring his *Murex uncinarus* to Martini's figure of this shell; and eleven lines being the measurement given of it, Mr. Sowerby, and even Lamarck himself, may have suspected that the *Murex uncinarus* was merely an example of the shell under consideration in a very early stage of growth.

The nearest allied species to the *Murex clavus* is that which I have just described under the new title of *Murex bipinnatus;* in that species the whorls are tuberculated, not hooked, and of a heptagonal form; in this, they are distinctly three-sided and conspicuously hooked at the angles; the laminated frills of the two species are also different.

Species 10. (Mus. White.)

**Murex capucinus.** *Mur. testá elongato-ovata, fusiformi-
turritā, crassiussculā; anfractibus transversīn subirregular-
larītis turrītis; trivārīcos, varicosi, varices multii-
lamellatās, lamellis brevibus, compressis, externa foliātā, recurvā; atro-fuscā, colunellā albidā; canali depresso, brevissculo; labro externo intus denticulato.*

**The Capuchin Murex.** Shell elongately ovate, fusiformy turreted, rather thick; whorls transversely somewhat irregularly ridged; three-varicose, varices many-lamellated, lamellae short, compressed, the outer lamella foliated, recurved; black-brown, columnella whitish; canal depressed, rather short; outer lip denticulated within.

*Chemnitz, Conch. Cab. vol. xi. pl. 192. f. 1849-50.*

*Hab. Philippine Islands (found at the root of Mango trees on the shore); Cuming.*

This species may be recognised by the peculiar compressed laminated structure of the varices. There is little doubt, I think, but that Lamarck's *Murex quadrisfons* is merely an accidental four-varicose variety of this species.
MUREX

PLATE III.

Species 11. (Mus. Cunning.)

**Murex Erinaceus.** *Mor. testa subfusiformis - ovata, spirae mediae; constrictus superne angulatus, inter varices tuberculatus, transversim fortiter costatus, costis rotundato-lunulatis, leviter nodatis, interstiliis minutissimis squamulosa-rugosis, lirae partis squamulosa sepulcrali; quadriradiis ad septemfascias variocas, varicibus rotundatibus irregularibus, uno frondosis, uno fimbriatotumulatis; albido-fuscati; canali brevi, clauso, subcrenato.*

The hedge-hog Murex. Shell somewhat fusiformly ovate, spire muddling; whorls angulated at the upper part, slightly tuberculuated between the varices, transversely strongly ribbed, ribs rotundately swollen, slightly waved, interstices very minutely squamulously rugose, with a small squanulous ridge running through; four- or seven-varicose, varices very irregular, sometimes frondose, sometimes fimbriately inmellated; white, stained with pale fulvous brown; canal short, closed, a little recurved.

Linneus, Syst. Nat. (Gmelin’s edit.), p. 3530.

Variety β.

*Testa varicibus incrustatis, solidia; costis transversis angustis, valde obscurioribus.*

Shell with the varices thickened, solid; transverse ribs narrow, much more obscure.


Variety γ.

*Testa una varicosum, una varicosum; constrictus superne albiceingulato.*

Shell sometimes varicose, sometimes without varices; whorls encircled with a white belt round the upper part.


Hab. Mediterranean, and coast of France and Britain, (found at low water and at depths varying to fourteen fathoms).

This species, like the *Murex trunculus and branderis*, which inhabit the same sea, is extremely variable in growth, some examples having as many as seven varices, whilst others exhibit nothing more than a row of almost obdurate laminae. In the variety β, which Lamarck distinguished as the *Murex Tarentinus*, the laminae of each varix, instead of being raised like a festooned frill, as in the type of the species, are pressed down and, as it were, solidified between the ribs; whilst the ribs are narrower and more obscure. The variety γ is chiefly distinguished by a conspicuous white belt encircling the ribs at the angle, the sculpture being in most respects like that of the variety β.

This is much the rarest state of the species; it is very well represented by M. Kiener as the *Murex cinquiliferus*, and I have a small but equally characteristic specimen from the collection of Thomas Norris, Esq.

Species 12. (Mus. White.)

**Murex Foliatus.** *Mor. testa ovato-ablonga, spirae brevis uscula; constrictus transversis costatis, costis parvis, compressis, subdistantibus, interstiliis lenticulatis; varices varicos, varicibus latibus, erecto-foliatis; albida, costae fusco-fuscis; apertura parallela, labro columna implexi, externo denticulato, deuto unico plano inferne armato; canali brevi, plano-compresso, clauso.*

The foliated Murex. Shell ovately oblong, spire rather short; whorls transversely ribbed, ribs small, compressed, somewhat distant, interstices smooth; three-varicose, varices thin, erectly foliated; whitish, banded with chestnut brown; aperture small, columnellar lip simple, outer lip denticulated, armed at the lower part with a small flattened tooth; canal short flatly compressed, closed.


*Purpurea foliata,* Martyn, Univ. Conch. pl. 66.


Hab. Island of Sitka, north-west coast of America (found in rocky places); Eschscholtz.

Lamarck committed a grand error in referring to Chemnitz’s admirable figure of this species for the illustration of the *Murex tripterus* of Born; and Kiener, confiding with his usual fidelity in the purity of Lamarck’s labours, has not failed to repeat it. M. Deshayes has, however, published the *Murex foliatus* in his recent edition of the *‘Animaux sans vertebres,* with an accurate citation of its synonyms, and the species is no longer veiled with any obscurity.

April 1845.
Species 13. (Mus. Taylor.)

**Murex calcitrata.** Mor. testá trigono-fusiformi, crassá, solidiorecula, spirá turritá; aequifractibus superiore depress issuing, transversum striatis et sulcatis, inter varices tuberculatis; trifurciam varios, varicibus biseriatis frondosis frondum serie alterá minuitá, alterá prominentem, frondibus crassiusculis, irregularibus, duabus anterioribus majoribus; rufescente-castanea, lineis balsam홍 angustis nigerrimos-fuscis, cicatizatá; canali sublongato, compresso, leviter recurvo.

The caltrop Murex. Shell triangularly fusiform, thick, rather solid, spire turreted; whoals rather depressed at the upper part, transversely striated and grooved, tuberculated between the varices; three-varicose, varices composed of a double row of fronds, one of which is minute, the other prominent with the fronds rather thick and irregular, the two most anterior being larger than the rest; reddish-chestnut, encircled with narrow blackish-brown lines or narrow belts; canal rather elongated, compressed, slightly recurved.

**Lamarck, Anim. sans vert. (Deshayes’ edit.), vol. ix. p. 573.**

_Hab._ Red Sea (found on the coral reefs); Rüppell.

Variety β.

**Testa plerumque brevior; albá, lines rubido-fusci cicata.** Shell generally shorter; white, encircled with reddish brown lines.


_Antiqua frondosa fasciata_, Martini.

_Hab._ West Indies (found on the coral reefs).

There can be little doubt but that Lamarck’s _Murex brevifrons_ is a white variety of his _Murex calcitrata_, inhabiting a different locality; although their close affinity is not commented upon by M. Deshayes. It is a thick, rather ponderous looking species, well characterized by the brown lines and belts which cross the interspaces between the varices. Some specimens are thin, and more frondose.

It may be interesting to know that the caltrop was an instrument of war, which the ancients scattered on the field of battle in order to wound the feet of the enemies’ horse. It was a small iron weapon constructed of three sides, with a row of sharp spikes down each angle, such as may be suggested by the three-varicose structure of the shell under consideration. If thrown with skill over the enemies’ quarters, a shower of caltrops must have proved very annoying, because, upon whatever side the instrument fell, a row of spikes would stand uppermost.

Species 14. (Mus. Cuming.)

**Murex rosarium, Var. β.** For description of which see Plate VIII.

Species 15. (Mus. Cuming.)

**Murex turbinatus.** Mor. testá ovato-turbinata, spirá brevi, conica; aequifractibus superiore angulatis, transversum lividum, liris impresso-striatum, alternae majoribus; sex-furicó varicos, varicibus obtuso-rotundatis, ad angulum conspicui spinae-tuberculatis, basem versus subumbilicato- tuberculatis; albidus, fusco-rufescens-fuscis tribus interfinitis varices super tincta, columnella pallide rosacea; canali breviore.

The turbinated Murex. Shell ovately turbinate, spire short, conical; whoals angulated at the upper part, transversely ridged, ridges impressly striated, alternate ridges the larger; six-varicose, varices obtusely rounded, conspicuously spinosely tubercled at the angle, somewhat prickly tubercled at the base; whitish, stained, upon the varices only, with three interrupted reddish brown bands, columella faintly tinged with pink; canal rather short.

**Lamarck, Anim. sans vert. (Deshayes’ edit.), vol. ix. p. 556.**

_Kiener, Icon. Coq. viv. pl. 22, f. 1._

_Hab._ Mouth of the Gambian, East coast of Africa.

The varices of this somewhat rare species are probably rather variable in number; in the specimen before me there are only six on a whorl, Lamarck mentions seven, and Kiener, who transcribes Lamarck’s Latin diagnose of the species, enumerates eight in his summary of the specific characters. The aperture of this shell is lined with pure white, and the columella with pink enamel.

Mr. Sowerby, jun., has unfortunately published a serious category of errors in attempting to illustrate this species; having figured three different shells, of which neither has any reference to it. The shell represented at Fig. 30. of the ‘Conchological Illustrations’ is an indifferent specimen of the _Murex spinivestinatus_; that represented at Fig. 90 I have decided, after a long and patient examination of the specimen, to be a worn, curiously stained, tubercled variety of the _Murex truncates_; and Fig. 91 represents an obscure example of the _Murex ceditus._
Species 16. (Mus. Cuming.)

**Murex maurus.** Mur. testa trigoao-oblonga, utrinque attenuata, croissantula, ponderata, spira acuminato-turritl; aseacteribus inter varices nuduloso-tehrenatis, transcursuin granulosae-liratis et impresso-triastis, liris alterius majoribus; trifuriam varicoso, varicibus inconclusatis, rotundatis, basem versus subnudele frondosis, frondibus parceis, perpendiculis; fuscescunt, liris nigricantibus, labram utiulabo rosco, labro externo dentatulo; canalii breviscullo.

The Moor Murex. Shell triangularly oblong, acuminately turreted at both ends; whorls undulate tubercled between the varices, transversely granulously ridged and impressly striated, alternate ridges the larger; three-varicose, varices thickened, rounded, somewhat obsoletely frondose towards the base, fronds small, very few in number; pale brown, ridges blackish, edge of the columnar and outer lips tinged with rose, outer lip denticate; canal rather short.

**Broderip, Pro. Zool. Soc., 1832.**

Hab. Island of Anama, Pacific Ocean (found on the reefs); Cuming.

M. Deshayes very properly reprimands M. Kiener for asserting that the *Murices maurus* and *rubescens* Broderip, are merely specimens of the *Murex adustus* in a bad state of preservation. "Cela prouve," very truly says the learned editor of the "Annaux sans vertébre," "que M. Kiener n'a pas eu sous les yeux ces espèces du naturaliste anglais." The *Murex maurus* more the appearance of a stunted immature *Murex palmarum* than a *Murex adustus*, from which it differs too manifestly to render any comparison necessary.

Mr. Cuming and Miss Saul both possess specimens of the *Murex maurus* in the finest possible condition, and I feel much pleasure in being enabled to add my testimony to its specific importance. M. Kiener disposes in like manner, of a vast number of the many valuable and characteristic new species of shells collected by Mr. Cuming, and described, from time to time, by Messrs. Broderip and Sowerby, in the 'Proceedings of the Zoological Society,' 1832-12.

Species 17. (Mus. Cuming.)

**Murex oxyacanthis.** Mur. testa pyriformi, spirae brevi,

obtusi, suturis cavernosis; aseacteribus transcursis liratis et impresso-triastis, liris alterius minutis; nivis, spinis fuscescunt tinctis; apertura parce, rotundula; canali breviscullo, ad extremitatem recurvo.

The sharp-spined Murex. Shell pear-shaped, spine short, obtuse, sutures cavernous; whorls transversely ridged and impressly striated, alternate ridges very small; seven-varicose, varices spined throughout, spines long, erect, canaliculated, alternate spines very small; snowy white, spines stained with pale brown, aperture small, round; canal rather short, recurved at the extremity.

**Broderip, Pro. Zool. Soc., 1832.**

Hab. Real Llejos, Central America (found in sandy mud at the depth of eight fathoms); Cuming.

Each transverse ridge terminates upon the following varix in a lofty canelulcated spine, the minute alternate ridges terminating in spines of the same proportion of size.

Miss Saul possesses several specimens of a dwarf variety of this species.

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Species 18. (Mus. Cuming.)

**Murex spicistcosta.** Mur. testa pyriformi, nane oblonga, nane breviore, ventricosa; aseacteribus superius angulatis, transcursis liratis et striatis, liris minuti, aseaster, subseriata, variis in angulis angulosis; varicosi verum septiferi varicosi, varicibus naiyque spinosis, spinis canaliculatis, subcervicatis, dabis anelliis angulos superius et dabis tribusve basalis, longioribus, subseriatis; alba, liris rosso-fuscis, unelli peris saturiato-varicosi brentiformibus hic illice tinctis, apertura fave alba, rubido sparsis maculatis; canali sublongato, interdum breviore, recurvo.

The spine-ribbed Murex. Shell pear-shaped, sometimes oblong, sometimes shorter and ventricose; whorls bi-angled, at the upper part, transversely ridged and striated, ridges minute, narrow, rather superficial; six or seven-varicose, varices armed with frond-like spines throughout, spines canaliculated, slightly curved, the basal and those upon the posterior angles, longer, sharp-pointed; white, ridges reddish brown, stained here and there with small crescent-shaped spots of a deeper colour, interior of the aperture white.

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stained in places with ruddy spots; canal rather elongated, sometimes shorter, recurved.


_Hab._ Gulf of Mexico.

This very interesting shell, of which a worn stunted example is represented in the ‘Conchological Illustrations,’ fig. 30, under the erroneous title of _Murex turbinatus_, was, I believe, originally distinguished by Mr. Sowerby by the name of _Murex fulvus_; no description, however, appeared, and as the name was subsequently cancelled from the catalogue, I am obliged to yield to M. Valenciennes the honour of having first introduced the species.

The frond-like spines of the _Murex spiniscostata_ are of a sharp simple structure, exhibiting no indication of being foliated; but are singularly characterised in being armed with a small prickle on each side at about one-third of their entire length from the top. This character can, however, only be recognised in such specimens as have the spines well developed.

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**Species 19. (Mus. Taylor.)**

**Murex Rufus.** _Mus. testa trigono-ovata, subfusiformi, spirá mediocrí; ainfrcctíus transversim levíér liratí, et gránoto-striátí, inter varíceis tuberculati; trifírarum varícosí, varícosí, uniseríatíus frondosis, frondis plano- compressíus, regularíbus, elegantíssimé foliátí; rufó-fuséct; aperture paréa rotundátá, sub-impressá._

**The Red Murex.** Shell triangularly ovate, somewhat fusiform, spire middling; whorls transversely ridged and granosely striated, tuberculated between the varices; three-varicose, varices surmounted by a single row of flatly compressed, regular, very elegantly foli-ated fronds; reddish-brown; aperture small, rounded, somewhat impressed.

**Lamarck,** Anim. sans vert. (Deshayes' edit.), vol. ix. p. 574.

_Hab._ Indian Seas.

This species is chiefly distinguished by its three single rows of elegant leaf-like fronds, some of which seem to be coated internally with one or more peculiar laminae of enamel. There is a very delicate small white variety of this shell with a pink apex.

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**Species 20. (Mus. Cuming.)**

**Murex Palmiferus.** _Mus. testa fusiformi-oblónga, spirá subelongatá, acuminato-turritá; ainfrcctíus transversim liratí et striátí, tuberculís duobus prominentíbus inter varíceis armatís; trifírarum varícosí, varícosí, subin-crasstíus, uniseríatíus frondosis, frondis brevís, sub-compressís, sepé lateraliter fimbriato-connexíus; roseo-fuscescenté aut albídd; canálí brevíssímo, recurvo; labro externo dentículato._

**The Branch-bearing Murex.** Shell fusiformally oblong, spire rather elongated, acuminately turreted; whorls transversely ridged and striated, armed between the varices with two prominent tubercles; three-varicose, varices somewhat thickened, furnished with a single row of short rather compressed fronds, often frimbriately connected at the side; pinkish brown or white; canal rather short, recurved; outer lip dentilculated.


_Hab._ North Australia.

This species may be recognised by its short compressed fronds, which range for the most part so closely side by side as often apparently to form a connected leaf-like frill.
MUREX.

PLATE V.

Species 21. (Fig. a, Mus. Cuming; Fig. b, Mus. Saul.)

Murex monodon. *Mar. testa ovato-fusiformi, tenui, spire suturea excavato-impressis; aevectibus transversis, labro reddish trifariam labrique frondosis, frondibus elongatis, curvatis, penultimâ longissimâ, penultiimer recurvâ; reflexente-fasciâ, frondibus nigricantibus, columna labrique limbo rosacea; canali brevissimo; labro infra medium dente valido erecto instructo.*

The single tooth Murex. Shell ovately fusiform, thin, sutures of the spire excavately impressed; whorls transversely ridged and striated; three-varicose, varices very beautifully frondose, fronds elongated, curved, the last but one from the base much the longest, and peculiarly curved back; reddish brown, fronds blackish, columnella and edge of the lip tinged with rose; canal rather short; lip furnished just beneath the middle with a strong raised tooth.

Variety B. (Fig. 21 a.)

*Testa alba, columnellâ labrique limbo vivide coccineo-roseis.* Shell pure white, columnella and edge of the outer lip bright scarlet rose.


*Murex oraneum,* Blainville (Kiener).

*Hab.* Dupuch's Island, Torres Straits (found on the reefs at low water); Dring, H. M. S. Beagle.

I have much pleasure in being able to illustrate the varieties of this fine species, by two most magnificent specimens from the cabinets of Mr. Cuming and Miss Saul; the one exhibiting the front structure, in the white variety, with the delicate contrast of the pink lip and columnella, the other showing the graceful curvature of the fronds, of which the lowest but one assumes such a remarkable spur-like form.

The *Murex monodon* and *imperialis,* though figured by Martini in his Conchylien Cabinet, in the year 1777, were unknown to Lamarck, whose monograph of the genus, in the 'Animaux sans vertèbres,' was not published until five and forty years afterwards.

Species 22. (Mus. Cuming.)

*Murex trunculus.* *Mar. testa ovato-fusiformi, subuntricosa; spiræ angulato-turritâ; aevectibus transversis impresso-striatis et obtusê nodaliferis, superne angulatis; serpentinâ variusâ, columnas ad angulum unum obtusam nodosam, unum squamato-tuberculatam; purpureo-fusco albique fasciatâ; canali brevi, compresso, recurvâ; aperture roseâ zonis purpureis et albis vivide radiâtâ.*

The banded Murex. Shell ovately fusiform, slightly ventricose, spire angularly turreted; whorls transversely impressly striated, and obtusely nodiferous, angulated at the upper part; six-varicose, sometimes obtusely nodose at the angle; sometimes squamately tubercled; banded with purple-brown and white; canal short, compressed, recurved; interior of the aperture vividly rayed with purple and white zones.


The figures given in illustration of this well-known species are selected to show the variable character of its growth, some examples being merely slightly nodiferous, whilst others are coronated with a prominent row of scale-like tubercles. A variation of structure analogous to this occurs in the genus *Tolota,* which presents both smooth and tubercled varieties of the greater portion of the species.

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MUREX.

PLATE VI.

Species 23. (Mus. Cuming.)

**Murex princeps.** *Mus. testa subpyriformi-ovata, bezo-gonat, spirae brevi; anfractibus supernis angulatis; trans-versa subabsoluta liratis et striatis; sefaria varicos, varicos foenosisis, frondibus subrubris, erectis; alba, fascis tineisque ferrugineo-fuscis transversis tinctae; canali brevi.*

**The Prince Murex.** Shell somewhat pyriformly ovate, six-angled, spine short; whors angulated at the upper part, transversely somewhat obsoletely ridged and striated; six-varicose, fronds frondose, fronds somewhat rude, erect; white, stained with transverse rusty brown lines and bands; canal short.


*Hab. Puerto Fortero, Central America (found on coral reefs at low water); Cuming.*

The fronds of this species are of a peculiarly rude erect character; and that upon the angle is in each varix much stouter at the base than any of the rest. The style of colouring, which is of a reddish rusty brown, reminds one of the *Murex radix* though quite unlike.

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Species 24. (Mus. Cuming.)

**Murex megacerus.** *Mus. testa fusiformi-ovata, quadrangulares, spirae subacuminata; anfractibus superbus leviter angulatis, inter varices nodosae-plicatas, transversa liratis et striatis, libris parvis, acutangulis; quadrifarium varicos, varicosis frondosis, frondibus peculiariter erectis, ad apicem leviter foliatis, fronde supera longissimae; folio-fuscum, ferrugineo-fusco plus minusque pallide tinctae; canali subelongato.*

**The Large-Horned Murex.** Shell fusiformly ovate, four-angled, spine somewhat acuminate; whors slightly angulated at the upper part, nodosely plicate between the varices, transversely ridged and striated, ridges small, sharp-angled; four-varicose, varices frondose, fronds peculiarly erect, slightly foliata at the top, uppermost frond the longest; fulvous white, stained more or less with rusty brown; canal slightly elongated.


*Hab. West Indies.*

This species, though presenting no peculiarity of colour, may be readily distinguished by its four-varicose and quadrangular structure, and by the straight erect character of the fronds.

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Species 25. (Mus. Cuming.)

**Murex sinensis.** *Mus. testa elongato-ovata, subfusiformi, lentis, spirae subacuminata; anfractibus transversis liratis et striatis, inter varices nodiferis; trifarium varicos, varicosis frondosis, frondibus regularibus, curvatis, pulcherrimae floridis, inciso-serratis; albiante, fusco tinctae, lineis transversis fuscis; labro infra medium fortiter erecto-dentato.*

**The Chinese Murex.** Shell elongately ovate, somewhat fusiform, thin, sutures of the spine rather impressed; whors transversely ridged and striated, nodiferous between the varices; three-varicose, varices frondose, fronds regular, curved, beautifully flowered, deeply serrated; whitish, stained with brown, transverse lines brown; lip strongly crestly toothed beneath the middle.


*Murex elongatus, var. 1., Sowerby, Conch. Illus. t. 88.

*Hab. China.*

The species which I here distinguish by the new title of *Murex Sinensis* appears to have been confounded for some time past with the *Murex elongatus,* or the young of the *Murex inflatus.* It is uniformly of a thin structure, and the fronds are of a delicate open flowery growth.

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Species 26. (Mus. Cuming.)

**Murex elongatus.** *Mus. testa fusiformi-elongata, tenui-cult, subacuminata; anfractibus transversis elevato-striatis, inter varices tuberculatis; trifarium varicos, varicosis frondosis, frondibus curvatis, inciso-serratis; rubido-fuscus, columnella et aperture fuscis nigrantibus; canali subelongato.*

**The Elongated Murex.** Shell fusiformly elongated, rather thin, somewhat ventricose; whors transversely elevately striated, tuberculatly between the varices; three-varicose, varices frondose, fronds curved, deeply serrated; dark reddish brown; columnella and interior of the aperture blackish violet; canal rather elongated.

**Lamarck,** Anim. sive ver. (Deshayes'edit.), vol.ix. p. 571.

*Hab. Gulf of Mexico.*

There is not so much novelty in the elongated structure of this species as in its uniform dark reddish-brown colour, and the blackish-violet enamel of the aperture.

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Plate VII.

Species 27. (Fig. a, b, c, d, Mus. Cuming.)

Murex endivia. Mur. testâ subgloboso-ovată, ventricosa, spirâ subturrætâ; anfractibus transversius liratis et striatis; sexfariam vel septifariam varicosis, varicibus frondosis, frondibus floridi-foliaceis, laciniate-muri-catis; pallide ferrugineo-fusâ, frondibus nigricante-fuscis; canali breve, ascendente; umbilico plerunque ampio.

The endive Murex. Shell somewhat globose ovate, ventricose, spire slightly turreted; whorls transversely ridged and striated; six- or seven-varicose, varices frondose, fronds flowery foliaceous, laciniate-muricate; pale rusty brown, fronds blackish brown, or white, zoned with blackish brown, fronds alternately white and blackish brown, columella and interior of the aperture white, edged with red, varies edged with red; canal short, ascending; umbilicus frequently large.

Variety β. (Fig. 27 a.)

Testa octofariam vel nonafariam varicosa, anfractibus su- perne declivibus, inferne contractis, varicibus octonis vel novenis, frondibus minoribus.

Shell eight- or nine-varicose, with the whorls bending downwards at the upper part, and contracted at the lower; fronds smaller.


Variety β. Murex saxicola, Broderip.

Hab. Philippine Islands (found in great abundance in rocky places at low water); Cuming.

The leading colour of this magnificent species is a rusty or blackish brown, and it is so differently distributed in different examples, that it would be useless to establish any specific varieties upon so extremely variable a character. The Murex endivia presents, however, a variety of form which is of much greater importance, so much so, that Mr. Broderip described it in the Zoological Journal as a new species, Murex saxicola. The numerous specimens collected by Mr. Cuming at the Philippine Islands, abundantly testify that the remarkable declination which characterises the upper portion of the whorls in this variety, is no other than that structure of which we find a similar modification in the common Murex trunculus of the Mediterranean. The red marginal colouring of the columella and outer lips forms a characteristic feature in this species.

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Species 28. (Mus. Saul.)

Murex Steere. Mur. testá abbreviato-fusiformi, crassá, transversim granoso-liratá, inter varices fortiter tuberculatá; trifuria varicosa, varicibus incurvassatis, frondosí, frondibus crispatio-ramosis, subcompressis, brevisaculis, fronde parcd intervenciente; fuscá, lirís nigricantibus, frondibus purpureo-roseis, colomellá et apertura fave albis; labro externo incurvassato, interdum denticulato; canalí brevisaculó.

Steere's Murex. Shell abbreviately fusiform, thick, transversely granosely ridged, strongly tuberculated between the varices; three-varicose, varies thickened, frondose, fronds crisply branched, somewhat compressed, rather short, with a small frond intervening; brown, ridges blackish, fronds purple-rose, columella and aperture white; outer lip thickened, denticulated within; canal rather short.


This shell might easily be mistaken for an accidental stunted growth of the Murex palma-rose, were it not for the constancy and peculiar mark of its characters. The fronds are short and somewhat erect, with a row of small fronds sprouting up at their base, they are also laterally pinched, as it were, and do not spread in the same flowery bifurcate manner as in the Murex palma-rose. There is another exactly similar example in the collection of Miss Steere, whose name deserves to be recorded in testimony of her honourable zeal for the science.

Species 29. (Mus. Cuming.)

Murex adustus. Mur. testá abbreviato-fusiformi, crassisaculó, transversim conspicié fervitá et striatá, inter varices maximé tuberculatá; trifuria varicosa, varicibus densissimé frondosis, frondibus foliaceis, dentato-nuricatis; fuscuscente-álba nigro tinctá, lirís frondibus aëreminis; colunellá rosá, interdum luteó, apertura fave alba, rosca margináta; canali brevi.

The burnt Murex. Shell shortly fusiform, rather thick, transversely conspicuously ridged and striated, very largely tuberculated; three-varicose, varices very thickly frondose, fronds foliaceous, dentately muri-
cated; brownish-white stained with black, ridges and fronds jet black; columella rose-colour, sometimes yellow, interior of the aperture white, edged with rose; canal short.


This species may be easily recognised by its jet black colour, and the profuse clustered character of the fronds.

Species 30. (Mus. Cuming.)

Murex palma-rose. Mur. testá oblongo-fusiformi, crassisaculó, transversim granoso-liratá, inter varices leviti ter bituberculatá; trifuria varicosa, varicibus frondosís, frondibus foliaceo-ramosis, biforcatim expansis; castaneo-fuscuscente, lirís nigricante-fuscis, frondibus roseo marginatis, colunellá et aperture fave albis; labro colunellári denticulato; canali subelongato.

The rose-branch Murex. Shell oblong-fusiform, rather thick, transversely granosely ridged, with two slight tubercles between the varices; three-varicose, varices frondose, fronds foliaceously branched, expanded in a bifurcate manner; pale chestnut brown, ridges blackish brown, fronds edged with pink, columella and interior of the aperture white; colunellate lip denticulated; canal rather elongated.


The beautiful pink branched character of the fronds of this species has always rendered it one of peculiar admiration to the collector.

Species 31. (Mus. Saul.)

Murex Sauli. Mur. testá elegantissimé fusiformi, transversim eximí granoso-liratá, inter varices lester tuberculatá; trifuria varicosa, varicibus frondosís, frondibus suberectís, foliaceo-nuricatis, fronde subincusánta interveintente; pallidó fuscuscente roscoo tinctá, lirís castaneo-fuscis, frondibus inus rosaceis, colunellá canali et aperture fave albis, roscoo margináta; labro colunellári simplici, lave; canali subelongato, recurvo.

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Saul’s Murex. Shell very elegantly fusiform, transversely delicately granosely ridged, slightly tuberculated between the varices; three-varicose, varices frondose, fronds rather erect, foliaceousy muricated, with a minute frond intervening; pale yellowish brown stained with pink, ridges chestnut brown, fronds pink within, columella canal and interior of the aperture white, edged with pink; columellar lip simple, smooth, canal rather elongated, recurved.


*Murex palma-rosa var.*, Kiener.

*Hab.* Philippine Islands; Cuming.

There can be no difficulty in distinguishing this species from the *Murex palma-rosa*; it is of an uniform paler colour, the canal, and columellar and outer lips being edged with pink, whilst the columellar lip presents no indication of being denticulated, and the fronds have here and there a small frond sprouting up at their base.

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Species 32. (*Mus.* Cuming.)

*Murex rubiginosus.* *Mar.* testa subabbreviato-fusiformi, transversim granoso-lirata et striata, inter varices for-titer tuberculatâ; trifariam varicosâ, varicibus frondosis, frondibus foliaceis, brevibus, alternis parcis, recumbentibus; pallidâ rubiginosa, liris frondibus nigricante-fusis; columellâ rubiginoso-luteâ, aperture fawce alba.

The rusty murex. Shell somewhat abbreviatedly fusiform, transversely granosely ridged and striated, strongly tuberculated between the varices; three-varicose, varices frondose, fronds foliaceous, short, the alternate small, recumbent; pale rusty brown, ridges and fronds blackish brown; columella rusty-yellow, interior of the aperture white.


*Hab.* Philippine Islands.

This shell, of which both Mr. Cuming and Mr. Taylor possess specimens, is quite distinct from any species hitherto described.
Species 33. (Mus. Saul.)

**Murex crassivaricosus.** *Mur. testa subabbreviato-fusiformi, crassissimulata; transversim grano-so-liratā et striatā tririam variocāsā, varīcōbus incrustātīs, rotundatiis, frondosiis, frondūibus paris, foliaceis, alternūs minorībus; livido-ferrugineā, apertura fave alba.*

**The thick-varicosē Murex.** Shell somewhat abbreviately fusiform, rather thickened, transversely grossly ridged and striated; three-varicose, varices thickened, rounded, frondose, fronds small, foliaceous, alternate ones smaller; livid rusty brown, interior of the aperture white.

**Reeve, Pro. Zool. Soc., 1845.**

*Hab. — ?*

A new species of which I have seen several characteristic examples, including an interesting white variety from the collection of Thomas Norris, Esq.

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Species 34. (Mus. Cuming.)

**Murex varius.** *Mur. testa subrhomboidalis, fusiformi, transversim grano-so-linlecta et striatā, post varices sepe tuberculata; antfractibus supernē angulatūs, infra rotundatis; quincunciarōsās, varīcōbus ad angulās et internē squamato-tuberculatis, squaunis tribus minutis interdum intercescentibus; olbidā, fulvo tinctā, lineis extantibus fuscescentibus; colurnellā et apertura fave albis; canalis brevissimis.*

**The changeable Murex.** Shell subrhomboidal, fusiform, transversely grossly lined and striated, often tuberculated behind the varices; whorls angulated at the upper part, rounded beneath; five-varicose, varices squamately tubercled at the angle and towards the base, with three minute scales sometimes coming between; whitish, stained with fulvous brown, raised lines light reddish-brown, columella and interior of the aperture white; canal rather short.

**Sowerby, Pro. Zool. Soc., 1840.**

*Hab. Mouth of the Gambīa, west coast of Africa; Lieut. Shaw.*

There is a smaller variety of this species in which the tubercles are much fuller and more obtuse, and which exhibits no indication of the minute intermediate scales noticed above.

May 1845.

Species 35. (Mus. Steere.)

**Murex pomum.** *Mur. testa fusiformi-oblonga, crassā, solidā, nubicē scaberrimā; transversā conspiciē liratā, inter varices tuberculatā; triariiam variocāsā, varīcōbus lamellās brevīsim complicatis tuberculatis; fulvē ant rufo-fuscescente; colurnellā et apertura fave ochraceis, labro colurnellās subrubroso, margiin erecto, nigerrimo-fusco, præcipuē superē, vicinē tincto, labro externo fortiter dentato, maculis triānis nigerrimo-fuscis ornato; canalis brevissimis, compresso, recurvāre.*

**The apple Murex.** Shell fusiform oblong, thick, solid, very rough throughout, transversely conspicuously ridged, tuberculated between the varices; three-varicose, varices tuberculated with a complicated mass of laminae; fulvous or reddish brown, columella and interior of the aperture ochraceous yellow, colurnella lip slightly wrinkled, edge erected, vividly stained, especially at the upper part, with very black brown; outer lip strongly toothed, ornamented with three black-brown spots; canal rather short, compressed, recurved.

**Gmelin, Syst. Nat., p. 3527, no. 6.**

*Murex oculus.*

*Hab. West Indies (found on coral reefs at the Island of St. Vincent); Guilding. Mediterranean, &c.*

A well-known species which appears to be very widely and abundantly distributed.

Species 36. (Mus. Cuming.)

**Murex oculatus.** *Mur. testa fusiformi-oblonga, crassissimulata, nudique leciter scabrosa, transversim liratā et striatā, inter varices bithercerulatā; tririam variocāsā, varīcōbus lamellās brevēsim complicatis tuberculatis; albidā, rufo-fuscescente tinctā, varīcōbus maculis quadrātūs rubentibus alternatis pectīs, colurnellā rubente-luteā, apertura fave alba, labro nigerrimo-fusco superē præcipuē, maculato, apice rubente; canalis brevissimis, compresso, recurvāre.*

**The eyed Murex.** Shell fusiform oblong, rather thick, slightly scabrous throughout, transversely ridged and striated, with two tubercles between the varices; three-varicose, varices tuberculated with short rather complicated lamellae; whitish, stained with reddish brown,
varices painted alternately with square red spots, columella reddish yellow, interior of the aperture white, lip spotted with black-brown, especially at the upper part, apex red, canal rather short, recurred.


Hab. — ?

Although this shell has so many characters in common with the Murex poma, it exhibits a constant peculiarity of sculpture, form, and colour. In sculpture it is smoother and presents two tubercles between each varix, in form it is more graceful and slender; and in colour it is peculiarly tinged and spotted with red, with a red apex. I have seen numerous examples of this species, and can distinguish them at a glance from any variety of the Murex poma.

Species 14. (Fig. 14. Plate III. Mus. Taylor; Fig. 14 b. Plate IX. Mus. Cuming.)

**Murex rosarium.** *Mer. testa globosa-turbinata, ventricosa, spirato brevisculata; spirata supercâ rotundato-angulata, transversa crebrilirata, liris crispato-rugosis, saxissaques; septifarium vel septiforium variis, varicibus obtusiis, angulis super squamato-tuberculatis, base apertus versus strangulatus. Ferrugineo-fuscescente, fasciae tribus nigrictante-fasciae interruptis ornata, varicibus roseo-marginatis, columella evident red, aperture fissa roseo striatulata; caulis brevisculus, latinsculo, umbilicato.

The rose-bed Murex. Shell globosely turbinated, ventricose, spire rather short; whorls rotundately angulated at the upper part, transversely closely ridged, ridges wrinkled in a crisped manner, and somewhat squamose; six- or seven-varicose, varix obtuse, squamately tubercled upon the angle, thick-sealed towards the base; rusty brown, ornamented with three interrupted dark brown bands, varices edged with rose, columella deep rose colour, interior of the aperture stained with three rose bands; canal rather short, somewhat broad, umbilicated.

**Variety β** (Plate III. Fig. 14).

*Testa globosior, albida, fasciis purpureis, columellâ citrino-luteata.*

Shell more globose, whitish, with the bands purple, and the columella citron yellow or salmon-colour.

Chemnitz, Conch. Cab. vol. x. pl. 161. t. 1528, 1529.

**Murex melolius,** Lamarck.

Hab. Fernando Po. Variety β, Senegal.

Although this species presents such a striking display of characters it is one of the most variable of the genus. No two shells, for example, are apparently more distinct from each other than the varieties here figured, yet upon examination they will be found to approximate in their plan of sculpture and distribution of colour with the minutest exactness. In form and structure the variations are really extraordinary; in one richly-coloured example before me, from the collection of Thomas Norris, Esq., the aperture is so large and widely expanded that the shell almost assumes the form of a *Pyrula,* in another the structure is that of a heavy solid shell like the *Murex imperialis* (though, of course, having no relation with that species).
MUREX.

PLATE X.

Species 37. (Mus. Saul.)

MUREX AXICORNIS. Variety B. For description of this species, see Plate XV.

Species 38. (Mus. Cuming.)

MUREX BANKSII. *Mur. testa subelongato-fusiformi, transversim granoso-lirata et striata, inter varices trifurcata; trifurium varicosum, varices frondosis, frondibus laciniiato-soleaceis, recurvus, fronde minuta basi interrumpente; costascis fuscis, frondibus nigricantibus, apice rosaceo; aperturâ rotundatâ, labro pulcherrimâ denticulato; canali longissimo.

BANKS’ MUREX. Shell somewhat elongately fusiform, transversely granously ridged and striated, with three tubercles between the varices; three-varicose, varices frondose, fronds lacinately foliaceous, recurved, with a minute frond intervening at the base; light chestnut brown, fronds blackish brown, apex pink; aperture rounded, lip very beautifully denticulated; canal rather long.


Hab. Moluccas.

The sculpture of this species is of a character somewhat similar to that of the *Murex axicorns*; it agrees with it also in the rounded aperture, closed canal, and finely denticulated lip. Here, however, the resemblance ceases, for its form and the growth of the fronds are totally different.

Species 39. (Mus. Cuming.)

MUREX ALABASTER. *Mur. testa trigono-fusiformi, spirâ testo longitudinem aquante; asperaciibus transversis liratis et striatis, liris laxius, superne angulatis, nodulis duobus tribusque subconcussis ad angulum arnutatis; trifurium varicosum, varices laminata-altatis, tuberculo erecto, profunde canaliendata, ad angulum vastatis; in tuis estusque eburneo; canali brevissimo.

THE ALABASTER MUREX. Shell triangularly fusiform, spire equal to the length of the shell, whorls transversely ridged and striated, ridges smooth, angulated at the upper part, armed at the angle with two or three rather conspicuous nodules; three-varicose, varices laminately winged, furnished at the angle with an erect deeply canaliculated tubercle; ivory white within and without; canal rather short.

Species 40. (Mus. Cuming.)

MUREX MICROPHYLLUS. *Mur. testa subfusiformi, cortexuscolata, inter varices bi-trifurcata, transversim granoso-lirata et striata, liris extensibus, nodiferis; trifurium varicosum, varices frondosis, frondibus superioribus breviis, subobscuris, inferioribus foliaceis; columella marginie dentata-corrugata; ferrugineo-fuscâ, liris conspicue nigri, apertura fave alba, columellâ luteo-aurantiâ; labro denticulato.

THE SMALL-LEAF MUREX. Shell somewhat fusiform, rather thick, with two or three elongated tubercles between the varices; transversely granously ridged and striated, ridges prominently standing out, nodiferous; three-varicose, varices frondose, upper fronds short, somewhat obscure, lower fronds foliaceous; edge of the columella dentately wrinkled; rusty brown, with the ridges conspicuously black, interior of the aperture white, columella yellowish orange; lip denticulated.


Hab. Ceylon (found in rocky places); Dr. Siebold.

This species is distinguished from the following by the prominent nodulous structure of the ridges, and by their very dark colour; by the obscure blunted growth of the fronds and absence of any pink colouring; and by the dentately wrinkled peculiarity of the edge of the columella.

Species 41. (Mus. Saul.)

MUREX TORREFACTUS. *Mur. testa subfusiformi, transversim eximio granoso-lirato et striato, inter variceas bifurcata; trifurium varicosum, varices frondosis, frondibus breviis, expanso-foliaceis, frondibus alternis parceis, decumanteis; pallide subulato-fuscâ, liris saturationibus, frondibus intus rosaceis; columellâ luteo-aurantiâ.


Hab. Island of Cagayan, Province of Misamis, Island of Mindanao (found on the beach); Cuming.

Mr. Sowerby referred this extraordinary shell with some doubt to the *Murex acanthorhoptera*; its proportions are, however, so utterly different that I venture to describe it as a new species. No other specimen has been seen.

May 1845.
The scorched Murex. Shell somewhat fusiform, transversely delicately granosely ridged and striated, with two tubercles between the varices; three-varicose, varices frondose, fronds short, expandedly foliated, alternate fronds small, bending downwards; pale burnt brown, ridges darker brown, fronds pink within; columella smooth, yellowish orange.


*Murex microphyllus*, var., Kiener.

*Hab.* Island of Ticao, Philippines; Cuming.

None but a Kiener could fail to discover the specific differences between this shell and the *Murex microphyllus*, as detailed in my observations on that species.

English authors may justly feel indignant at the uncivilized manner in which their new species are disposed of by this author, merely because he has not the discrimination to appreciate them.
MUREX.

Plate XI.

Species 42. (Mus. Cuming.)

Murex imperialis. *Mus. testa ovato-ventricosa, crassa, ponderosa, transversim costata et striata, interstilis peculiariter punctuataris, tuberculo subelongato variciformi inter varices armata; quadrijugaria varicosae, varicibus crassis, tuberculiferis; albidâ, columellâ corrugata; labro externo dentato; canalí brevissimâ.

The imperial Murex. Shell ovately ventricose, thick, ponderous, transversely ribbed and striated, interstices peculiarly punctured, armed between the varices with a rather elongated varix-shaped tubercle; four-varices, varices thick, tuberculiferous; whitish, columna wrinkled; outer lip toothed; canal short.

Hab. Isabella Island, California (found on mud banks);
Captain Belcher, R.N.

The mouth of this species is sometimes yellow, sometimes deep pink. Of the latter variety there is a beautiful example in the collection of Colonel Drummond.

Species 43. (Fig. a, Mus. Cuming; Fig. b, Mus. Taylor.)

Murex anguliferus. *Mus. testa pyriformis-fusiformi, trigonulari, crassiunctâ, transversim striata, rugosa et leviter corrugata, tuberculo magno in plicam sepe terminato inter varices; trigonian varicosae, varicibus subincurvatis, squamis brevibus solidiunctis recurvatis mariculis armatis; albidâ, fasciâ fusco interdum cinctutâ, columellâ et apertura fuscâ albis, roseo marginatis; canalí brevissimâ, ascendente.

The anguliferous Murex. Shell pyriformly fusiform, triangular, rather thick, transversely striated, rough and slightly wrinkled, with a large tubercle between the varices which sometimes terminates in a fold; three-varices, varices somewhat thickened, and armed with short solid recurved sharp-pointed scales; white, sometimes encircled with a brown band, columna and interior of the aperture white, edged with pink; canal rather short, ascending.

Variety β. (Fig. 43 b.)

Testa omnino fusca.
Shell entirely brown.

Murex ferrugio, Wood.


Hab. Ceylon (found on the reefs); Miller, R.N.

This species, which may easily be distinguished by its peculiarly triangular pyriform shape, is certainly not *Le Sirat* of Adanson (see Plate XXIV.) as Lamarck supposed. The *Murex ferrugio* of Wood, which I at one time thought to be a distinct species, is unquestionably a variety only of this.

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Species 44. (Mus. Steere.)

Murex bicolor. *Mus. testa globoso-oblongâ, tenerisculâ, inflata, ventricosa, transversim striata, rugosa et leviter corrugata; lirâ magna elongata variciformi, tuberculiferi, inter varices; quadrijugaria varicosae, varicibus rotundatis, squamis plus minusce solidis suprär et inferior, tuberculatis compressis in medio, armatis; roseo-albicantâ, fuscoventer palidosum tincta, colonellâ et apertura fumé rosea; labro colonella latisimâ expansa, marginis erectâ, labro externo dentato; canali brevissimo, compresso, ascendente.

The two-coloured Murex. Shell globosely oblong, thin, inflated, ventricose, transversely striated, rough and slightly wrinkled, with a large elongated, tuberculiferous varix-like ridge between the varices; five-varices, varices rounded, armed at the upper and lower parts with more or less solid scales, in the middle with compressed tubercles; pinkish white, faintly stained with light brown, columna and interior of the aperture bright pink; columna lip very widely expanded, erect at the edge, outer lip toothed; canal rather short, compressed, ascending.


*Murex erythrostomus*, Swainson.
*Murex regius*, Schubert and Wagner (not of Swainson).
*Murex hippocastanum*, Philippi (not of Linnaeus).

Hab. Gulf of California (found on mud banks at low water); Lieutenant Babb, R.N.

Dr. Philippi appears to have described and figured in the eighth Part of his 'Abbild. und Besch. Conch.' under the new title of *Murex hippocastanum*, a small variety of this species in which the columna is white and the light brown colouring rather predominates.

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MUREX.

PLATE XII.

Species 45. (Mus. Cuming.)

Murex rubescens. Mar. testá fusiformi, crassa, transversum striatum et costatum, inter varices fortiter tuberculatam; trifurcium varicosum, varicibus incurvatis, tuberculis obscuris rubis conicaliatis irregulariter arnatis; rivicl rubescente, tuberculis castaneo-fuscis; aperture parce.

The pink-red Murex. Shell fusiform, thick, transversely striated and ribbed, strongly tuberculated between the varices; three-varicose, varices thickened, armed with irregular rude obtuse canaliculated tubercles; bright pink-red, tubercles chestnut brown; aperture small.


Hab. Tahiti (found on the coral reefs); Cuming. A solid shell of rude irregular structure.

Species 46. (Mus. Cuming.)

Murex digitatus. Mar. testá subpyriformi, spirá brevi, suturis cavernosis; transversum scrobosum-stratulatum et striatum; octofurcium varicosum, varicibus frondosis, frondibus parvis, numerosis, erecto-dilatatis, ad summam turbae leviter palmatis; aurato-fuscenscente, frondibus castaneis; aperture parce; canali subelongato.

The digitated Murex. Shell somewhat pyriform, spire short, sutures cavernous; transversely roughly ridged and striated; eight-varicose, varices frondose, fronds small, numerous, erectly dilated, slightly palmed at the summit; orange-brown, fronds dark chestnut; aperture small; canal rather elongated.


Hab. Island of Massowa, Red Sea (found in rocky places); Rippell. There are eight varices to a whorl in this beautiful species, each consisting of a row of numerous palmated fronds.

Species 47. (Mus. Steere.)

Murex nigratus. Mar. testá ovata-pyriformi, ventricosa, spirá brevi; anfractibus superne angulatis, transversum planulitatis, liris alternis latioribus; octofurcium vel nonafurcium varicosum, varicibus frondosum, fronde ad an-

Species 48. (Mus. Saul.)

Murex melanomathos. Mar. testá globoso-pyriformi, spirá brevi, transversum elevato-striatum; octofurcium varicosum, varicibus squamato-spinosis, spinis solidissimis, conicaliatis, conferite, peculiarium erectis; albá, varicibus aterrimis; aperture parce; canali subcompresso; clavo.

The black-spined Murex. Shell globose-pyriform, spire short, transversely elevated striated, eight-varicose, varices squamately spined, spines rather solid, canaliculated, close-set, peculiarly erect; white, varices jet-black; aperture small, canal rather compressed, closed.

Gmelin; Lamarck, Animalis sans vert. (Deshayes' edit.), vol. ix. p. 584.

Hab. — ?

This interesting little shell may be recognized by the tall, solid, erect, jet-black character of its spines, in which respect it differs from the Murex angularis, a species I have often seen mistaken for it by collectors.

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Species 49. (Mus. Cuming.)

**Murex varicosus.** *Murex testa subelongato-pyriiformi, transversim squamato-lirata, spirea suturis profundè cavernosis; septifariana varicosâ, variae ultimae marginales planifrontosae, frondibus canaliculatis ad summilitatem palmatis, extus crispato-squamatis, variabilibus exteri frondibus irregularibus plus minusve confragosis; alba, frondibus nigricante-fuscis; aperture peculiariter parva.*

The varicose Murex. Shell somewhat elongately pyriform, transversely squamately ridged, sutures of the spire deeply cavernous; seven-varicose, the marginal varix flatly frondose, fronds canaliculated, palmated at the summit, crisply scaled on the outside, the rest of the varices with the fronds irregular and more or less obscurely broken away; white, fronds blackish brown; aperture peculiarly small.

**Sowerby, Pro. Zool. Soc., 1840.**

*Hab. — ?*

An interesting species established by Mr. Sowerby, approximating, in some degree, to the *Murex secundus*. 
MUEREX.

PLATE XIII.

Species 50. (Fig. a and b, Mus. Suid.)

Murex humilis. *Mer. testa ovato-pyrimformi, spirae brevi, angulato-toritatis, angulatius superius, planulis, infra contractis, transversis liratis, liris piano varicosi conscius; octofarman varicosi, varicosi medio seriatis duplo-squamosis, squamosis brevibus, recurrentis, basi frowdosis, frequentibus subrugosis, spinosis; albido-fusco-castisque, aurantio-refelescens profuse tincta et maculata; opercularis porrecta; canal subangulata.

The humble Murex. Shell ovately pyriform, spire short, angularly turreted, whors depressed round the upper part, contracted below, transversely ridged, ridges conspicuous behind the varices; eight-varicose, varices consisting in the middle of a double row of scales, peculiarly curved back, at the base of a single row of slightly branched spinous fronds; whitish brown, profuscly stained and spotted with orange red; aperture small, canal slightly elongated.


Hab. St. Elena, western coast of South America (dredged from sandy mud at the depth of seven fathoms); Cuming.

This species has been but imperfectly described and figured hitherto for want of a good specimen. It is a species of very peculiar character, its pyriform growth, the curiously recurved bi-squatam structure of the varices, and its orange-red colouring are features of considerable specific interest.

Species 51. (Mus. Suid.)

Murex ambiguus. *Mer. testa globosa, subpyriformi, transversis liratis, liris irregularibus, interruptis; octofarman varicosi, varicosi medio seriatis, varicosi subrugosis, varicosi alternis vel punctatis etato-ravatosis, spinosis, basalius longi-ordines; albido, frequentibus spinosis, labris colon- nularia parte superiori nigra tincta; canal subangulata.

The ambiguous Murex. Shell globose, slightly pyriform, transversely ridged, ridges irregular, interrupted; eight-varicose, varices frondose, the alternate fronds, or fewer, elevated branched, spinous, basal fronds longer; white, fronds and ridges jet black, upper part of the columellar lip stained with black; canal rather short.


Hab. — ?

Three species appear to me to have been confused hitherto under the common title of *Murex radix*, which though closely approximating may be separated without difficulty by any person possessing a tolerable share of conchological discrimination. The true *Murex radix* is a round particularly solid heavy shell with a short, though sharply acuminate, spire, with not less than ten varices, in which the fronds are numerous, somewhat laterally compressed, comparatively short, and sharp pointed; the species described by Dr. Philippi under the title of *Murex nigritus* (for which see Pl. 12. Sp. 47), has but eight or nine varices and the fronds are not branched, those on the upper angle of the whors being tubercularly squamate, those in the middle flat and very obscure, whilst those at the base are long and horn-shaped. In the species under consideration the shell is of somewhat light structure and the fronds are large, open, and flowery. It certainly presents a modification of character intermediate between the *Murex radic* and *nigritus*, but it is always easy to be distinguished: and any modification of structure may, I apprehend, be considered of specific importance when it is not immediately approached on either side.

Species 52. (Mus. Metcalfe.)

Murex corrugatus. *Mer. testa ovato-fusiformi, inter varicosi bidubractato, transversis liratis et striato, liris subconspicuis, obsoleti nodosis; trifurman varicosi, varicosi obliqui, peculiariter lamineo-squamatis; fere nigro-fusco-scente, opercularis sive violacei.

The wrinkled Murex. Shell ovately fusiform, with two tubercles between the varices, transversely ridged and striated, ridges somewhat conspicuous, obsoletely noduled; three-varicose, varices oblique, peculiarly laminately squamate; rusty-brown, interior of the aperture tinged with violet.


Hab. North Australia; H.M.S. Beagle.

This shell has very much the aspect of the *Murex pal- miformis*, the varices are nevertheless of very different struc-
MUREX.—Plate XIII.

MUREX. Instead of being furnished with a row of distinct leaf-like fronds, they are ornamented throughout with a connected lamina forming festoons of open scales.

Species 53. (Mus. Metcalfe.)

**Murex triformis.** *Mute* trigono-ovata, crassiuscula, transversim lirata et corrugata, tuberculis duobus ant pluribus inter varices; trifurcatus varicosi; varicosus laminato-fimbriatus, superne excavato-sinuatis; ferrugineofasci; apertura ovata, superne sinuata.

The three-shaped Murex. Shell triangularly ovate, rather thick, transversely ridged and wrinkled, with two or more tubercles between the varices; three varicose, varices laminately frilled, excavately sinuated at the upper part; rusty-brown; aperture ovate, sinuated at the upper part.


**Hab.** New Holland.

Several specimens of this shell have been lately received from New Holland, and it is now generally regarded as a species quite distinct from the *Murex acanthropterus*. It is of a more rude and solid structure, and of a dark rusty brown colour.
Species 54. (Mus. Cuming.)

Murex pellucidus. *M. testá tripósa-fusiformi, tenui, transversiá liráta, pulcherrimé squamatá, inter varícies tuberculátá; tricarícócá, varícibus oblúquis, latítuimé et oximé aláti; pellucido-albá; apertúra paréct, labro indus nodosó.

The transparent Murex. Shell triangularly fusiform, thin, transversely ridged, very beautifully scaled, tuberculated between the varies; three-varicose, varies oblique, very widely and delicately winged; transparent white; aperture small, lip nodose within.

*Murex trigonularis*, Sowerby (not of Lamarck).

**Hab.** Island of Bantayan, Philippines (found upon a coral bottom at the depth of seven fathoms); Cuming.

Mr. Sowerby somewhat incautiously refers this shell to the *Murex trigonularis* of Lamarck, with whose description of which it certainly does not agree. Instead of this shell being rather smooth “luciscól” it is covered with small scales; the winged varies are not very narrow “per-angüsius,” but, on the contrary, very wide, and instead of their being two tubercles in the interspaces between the varies “tuberculis interstitialibus gemínis” there is but one. The sculpture is in most respects like that of the following species.

I therefore distinguish it by a new name, and consider Lamarck’s *Murex trigonularis* to be either (with Mr. Gray) a worn *M. aconthopterus* or (with M. Kiener) a worn *M. phyllopterus*.

Species 55. (Mus. Cuming.)

Murex tripterus. *M. testá ovato-fusiformi, transversiá liráta, pulcherrimé squamatá, inter varícies tuberculátá; tricarícócá, varícibus vultú oblique, latítuimé aláti; albá, columélá et apertúra fáuce intus-aquaretis; colu-mlélabro indus conspicé nodosó.

The three-sided Murex. Shell ovately fusiform, transversely ridged, very beautifully scaled, tuberculated between the varies; three-varicose, varies very oblique, widely winged; white, columella and interior of the aperture yellowish orange; columella and lip conspicuously nodose within.


Hab. Island of Ticao, Philippines (found on the reefs); Cuming.

This species differs from the preceding in having a much less acuminated spire, and in the columella being strongly nodose as well as the outer lip.

Species 56. (Mus. Taylor.)


The cabbage Murex. Shell somewhat globosely ovate, very ventricose, transversely striated, strie close-set, peculiarly very minutely crisply nodulös, tuberculated near the varies, especially round the upper portion of each whorl, tubercles short, solid; six- or eight-varicose, varies flat, lying down, lamella-like, serrated at the edge, spinosely squamate towards the base; light brown, encircled, with sometimes interrupted, chestnut-brown bands; columella, lip, and edges of the varies rich purple-pink, interior of the aperture tinged with orange.


**Hab.** Gulf of California (found in rocky places at a depth of from four to six fathoms); Cuming.

This beautiful and very distinct species grows to more than twice the size of the example selected for representation in the accompanying plate.

The figure in Martini, Conchyl. Cab., vol. iii. pl. 104. f. 986, to which M. Kiener refers for an illustration of the species, is not the *Murex brassica*, but may be quoted as affording an excellent representation of the *Murex calcitrupa var. β*, (for which see Pl. III. Sp. 13.), *Murex brevifrons*, Lamarck.

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MUREX.—PLATE XIV.

Species 57. (Mus. Cuming.)

Murex pinnatus. Mur. testa elongato-fusiformi, inter varices tuberculata, transversim tinutâ et striata, longitudimaliter squamato- striata; trivariocosa, varicibus obliquis, alatis; alba; apertura parva.

The winged Murex. Shell elongately fusiform, tuberculated between the varices, transversely ridged and striated, longitudinally squamately striated; three-varicose, varices oblique, winged; white, aperture small.

Wood, Index Testaceologicus Supp., pl. 5. f. 30.

Hab. China.

The sculpture of this well-known Chinese species is very similar to that of the Murex tripterus.

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Species 73. (Fig. 60, Mus. Saul.)

Murex osseus. Mur. testa oblongo-ovata, subfusiformi, laciniosulata, inter varices fortiter tuberculata; trivariocosa, varicibus fimbriato-laminatis, superne falcatis; alba, castaneo-fusco hic illic, tinutâ; apertura peculiari parva, ovata.

The bony Murex. Shell oblong-ovate, somewhat fusiform, rather smooth, strongly tubered between the varices; three-varicose, varices fimbriately laminated, hooked at the upper part; white, stained here and there with chestnut-brown; aperture peculiarly small, oval.


Hab. —?

The Murex pinniger is perhaps the nearest allied species to this, though of very different form.
Species 58. (Mus. Saul.)

*Murex fenestrat us.* *Mur. testa fusiformi-ovata, supernæ subangulata, infernæ contracta, inter varices longitudinalibus, labrum aureomarginatum, spirae anguvslatæ, supernæ tribus vel quaternis, in medio duarum, deinde ad base duarum; lirarum interstitiis quadratis, excavatis; quadrifurcium varicosum, labresque super erecta-fimbriatæ; albidæ, lirarum interstitiis castaneo-umbido-fuscos, carinulae vicidé fuscosaurantæs; apertura parva, columna tabuliforme leviter nodulosa.

The window-sculptured *Murex.* Shell fusiformly ovate, somewhat angulated at the upper part, contracted at the lower, longitudinally single-ribbed between the varices, encircled by narrow very beautifully squamate ridges, three or four round the upper part, two round the middle, and two round the base, interspaces between the ridges square, excavated; four-varicose, transverse ridges erectly fimbriated upon the varices; whitish, interspaces between the ridges dark chestnut or reddish brown, varices bright fuscous orange; aperture small, lip and columna slightly nodulous.


Hab. —— ?

I think M. Deshayes has erred in excluding the figures of Sowerby and Kiener from the synonymy of this remarkable species. This is undoubtedly the shell figured by Chemnitz, and not the violet-mouth shell of which M. Deshayes speaks. The figures hitherto published of it have all unfortunately been drawn from worn imperfect specimens, none of them exhibiting that beautifully scaled sculpture as seen on the back of the fimbriated digitations in the example here represented.

Species 59. (Mus. Cuming.)

*Murex regius.* *Mur. testá globoso-ovata, crasiscenta, transversam peculiariro corrugato-striata, et fimbriata, fusculum auguslum, subdistantibus; sexfariam varicosæ, carinulae duplicato-squamatae, squamis profunde canaliculatæ, spinoso-serratæ; fuscescente-altâ, rosco tincta, varicum squamis intus roseis, suturæ picro-nilgris; labro columnallari erecto-expanso, intus et infernæ vividae roseo, supernæ conspicua piceo-nigro; canali planisculo, corrugato; labro fortiter denticulato.

The royal *Murex.* Shell globose ly ovate, rather thick, transversely peculiarly corrugately striated and corded, cords narrow, rather distant; six-varicose, varices consisting of a double row of deeply canaliculated, spinosely serrated seals; light brownish white, tinged with pink, interior of the scales pink, sutures pitch-black; columna lip erectly expanded, bright pink towards the interior and lower part, pitch-black at the upper; canal rather flat, curiously wrinkled or indented; lip strongly denticulated.


*Phyllonotus regius,* Swainson.

Hab. Panama (found on mud banks at low water); Cuming.

No one can fail to recognize this magnificent and well-known species.

Species 37. (Plates X. and XV. Fig. 37.)

*Murex axicornis.* *Mur. testá ovato-fusiformi, transversam striata, striis mixtissimís nodulis, scabrosis: trisfariam varicosæ, carinulae conspicue fimbriatae, furdos inusculati, elongatis, dilutato-ramosis, spinosis; roseo-fuscescente; aperturâ parâ, subrotundâ.

The *Axis’ horn* *Murex.* Shell ovately fusiform, transversely striated, striae very minutely nodded, scabrous; three-varicose, varices conspicuously frondose, fronds rather few in number, elongated, dilately branched, spinous; pinkish brown; aperture small, nearly round.

Variety β (Plate X. Fig. 37. Mus. Saul.)

*Testa grandior, elongatior, furdosus breviriosus, minus dilatato-ramosus, purpureo-nigrinatulus.*

Shell larger, more elongated, with the fronds shorter, less dilately branched, and of a purple-black colour. Lamarck, Anim. sans vert. (Deshayes’ edit.), vol. ix. p. 574. Hab. Island of Bohol, Philippines (dredged from the depth of twelve fathoms); Cuming.

I had selected the variety β for illustration in Plate X. Fig. 37. with the view of describing it as a new species; upon

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mature examination, however, I am obliged to concede to the opinion held by Mr. Sowerby as to its being a variety of the *Murex azicornis*.

Axis was a name given by the ancients to an animal of the deer tribe, recorded by Pliny as being held sacred to Bacchus.

Species 69. (Mus. Cuming.)

Murex aculeatus. *Murex testa fusiformis, transversim striatæ, inter varices subobsoletæ bituberculatæ; trifurcian varicosæ, varicibus frondosis, frondibus varicosulis, dilatato-ramosis, spinosis; roseo-fuscescente, varicosus, columnella, apice basique vivide rosaceis; apertura parva, labro minutè denticulato.*

The prickly Murex. Shell fusiform, transversely striated, somewhat obsoletely tuberculated between the varices; three-varicose, varices frondose, fronds rather few, dilately branched, spinous; pinkish brown, varices, columella, apex and base deep pink; aperture small, less minutely denticulated.


A beautiful little species, richly suffused throughout with a delicate pink tinge.
Species 61. (Fig. a, Mus. Cuming; Fig. b, Mus. Norris.)

**Murex falcatus.** *Mur. testa abbreviata-fusiformis, spirare brevi, angulato-turrata, lirae parcei longitudinalibus et transversis apicem versus eliathris; quinquecostae, varicosus laminato-alatis, superne falcatis, margine involuto; albâ, rubido-fusco tinctâ; aperturâ parvâ; canali subelongato.*

The hooked *Murex.* Shell abbreviated fusiform, spire short, angularly turreted, latticed towards the apex with small longitudinal and transverse ridges; five-varicose, varices laminately winged, hooked at the upper part, with the edge turned inwards; white, stained with reddish-brown; aperture small; canal rather elongated.


_Eadem. Murex adnucus,* Sowerby.

_Hab. Japan._

By permission of Thomas Norris, Esq., I have represented at Fig. 61 a, the specimen described by Mr. Sowerby under the name of *Murex adnucus.* It appears merely to exhibit a slight modification of growth without any variation of specific importance.

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Species 62. (Mus. Cuming.)

**Murex pinniger.** *Mur. testa fusiformis, supernâ obsoletâ lirata, tuberco lo solido prominulo inter varices; tricus cosseolae, varicosus aleformis, superne laminato-fuscolatâ, ad base alatis; purpurascens-albae, fusco hie illice tincta et punctata; aperturâ peculiarii parâd.*

The wing-bearing *Murex.* Shell fusiform, obsoletely ridged at the upper part, with a solid prominent tubercle between the varices; three-varicose, varices wing-like, laminately hooked at the upper part, winged at the base; purplish white stained and spotted here and there with brown.


*Murex crisatus,* Gray (not Broecki).

_Hab. Xipixapi,* West Columbia (dredged from sandy mud at the depth of eight fathoms); Cuming.

The varices of this species are peculiarly thin and flattened though a little waved and serrated at the edge; and they are developed in a curious winged manner at the base.

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Species 63. (Mus. Saul.)

**Murex phlyloperus.** *Mur. testa trigono-oblonga, sub-fusiformis, inter varies obtusae tuberculata, transversa lirata, lirae latissimae, sub obsolete, distantiis; tricus cosseolae, varicosus laminato-alatis, aleformis; albâ, fasciis latissimis castaneo-fusco inter varices conspiciue plicata; canali brevissimo.*

The leaf-winged *Murex.* Shell triangularly oblong, somewhat fusiform, obtusely tuberculated between the varices, transversely ridged, ridges rather broad, somewhat obsolete, distant; three-varicose, varices radiately laminated, wing-like; white, conspicuously painted between the varices with rather broad chestnut brown bands; canal rather short.

**Lamarck,** Anim. sans vert. (Deshayes' edit.), vol. ix. p. 577.

*Murex trilateralis,* Sowerby.

_Hab. —— ?*

This shell may probably be a dark banded variety, and not the type, of Lamarck's species; it is, however, the only specimen at present known in this country, and the only one I remember to have seen.

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Species 64. (Mus. Cuming.)

**Murex acanthropterus.** *Mur. testa trigono-fusiformi, anfractibus supernâ angulatis, transversim liratis et striatis; truncosseolae, varicosus laminato-alatis, membranaceis, superficie canalicolato-falcatis; albâ, interdum fuscavescens sparsim tincta; canali longissimo.*

The spine-winged *Murex.* Shell triangularly fusiform, whors angled at the upper part, transversely ridged and striated; three-varicose, varices laminately winged, membranaceous, canaliculately hooked at the upper part; white, sparingly stained with light brown; canal rather long.

**Lamarck,** Anim. sans vert. (Deshayes' edit.), vol. ix. p. 577.

_Hab. —— ?*

The varices of this species exhibit a very peculiar canaliculated structure at the upper part, which ranges on the spire in rows of prominent spine-like hooks.

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Species 65. (Mus. Cuming.)

**Murex Gambiensis.** *Mur. testa fusiformi, inferne attenuata, solidissimae, transversim obsolete striata, tuber-

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culo magno prominulo inter varices; trivaricosá, varicibus plicato-laminatis, superné falcatis, ad basem alatis; albá, fasce hie illic punctá; aperturá parcá; canali longísculo.

The Gambia Murex. Shell fusiform, attenuated at the lower part, rather solid, transversely obsoletely striated, with a large prominent tubercle between the varices; three-varicose, varices plicately laminated, hooked at the upper part, winged at the base; white, dotted here and there with brown; aperture small; canal rather long.


Hab. Mouth of the Gambia, west coast of Africa.

Closely allied to the Murex pinniger, but of a more elongated structure, and different style of colouring.

Species 66. (Mus. Cuming.)

Murex cervicornis. Mur. testá fusiformi, transversim liratá et striatá; trisfríssae varicosá, varicibus frondosis, frondibus erectis, superioribus bifurcatim elongatís; albá; aperturá subrotundá; canali longísculo, recurvó.

The stag's horn Murex. Shell fusiform, transversely ridged and striated; three-varicose, varices frondose, fronds erect, upper ones bifurcately elongated; white, aperture nearly round; canal rather long, recurved.


Hab. — — ?

A rare and elegantly formed species, well distinguished by the curious two-forked growth of the upper fronds of the varices.
MUREX.

PLATE XVII.

Species 67. (Mus. Norris.)

Murex crispus. Mur. testa ovato-pyriformi, transversum lirata, liris angustis, granoasis, interstitialibus corrugatis; septifarium varicoso, carinibus densissimis frondosis, frondibus brevibus curvatis, auctissimis muricato-ramosis; albidae vel aurantiaco-fuscis, crenato et aperture fine velida aurantis; apertura ocati, labro crenato; canali breviscuto.

Stainforth’s Murex. Shell globosely ovate, somewhat pyriform, transversely ridged, ridges narrow, granose, interstices wrinkled; seven-varicose, varices unusually thickly frondose, fronds short, close-set, very sharply prickly branched; white or orange-brown, fronds and ridges blackish brown, columna and interior of the aperture bright orange; aperture ovate, lip crenated; canal rather short.


Hab. North coast of New Holland; H. M. S. Beagle.

I had the pleasure of describing this very characteristic species about three years since from a specimen in the cabinet of Mr. Inwood, now in the possession of Mr. Burt, the only one at that time known. Several examples have been since brought from New Holland by H. M. S. Beagle, but none with the beautiful ramose structure of the varices more fully developed than in the original specimen. Each varix is composed of a number of very close-set prickly fronds, sometimes one or two successive layers of them, which from their delicate structure appear to become very soon eroded. No specimens of this shell have yet been seen without the back varices being more or less destroyed.

Species 69. (Mus. Cuming.)

Murex radix. Mur. testa globoa, crassissima, solidae, spirb brevi, acuminata, transversum lirata, liris inequalibus; multivaricoso, varicosibus ad decenios muricato-squamatis, squamis brevibus, solidis, alternis majoribus; albidae, squamis alterniis; canal brevis.

The root Murex. Shell globose, very thick, solid, spine short, acuminate, transversely ridged, ridges unequal; many-varicose, varices about ten to a whorl, prickly squamate, scales short, solid, alternate ones the larger; white, scales jet black; canal short.


Hab. Bay of Caracas, West Colombia (found on mud banks at low water); Cuming.

This species may be distinguished by its massive structure, round globose form, and by the numerous varices characterised by the compressed stunted growth of the scales.

Species 70. (Mus. Cuming.)

Murex nitidus. Mur. testa ovato-pyriformi, transversum lirata, liris valde inequalibus; septifarium vel octofarium varicosum, carinibus squamatis, squamis elongatis, erectis, muricatis; albidae, squamis nigerrima-fuscia, basi fusca, liris nigrais et fuscis; aperture subparva.

The neat Murex. Shell ovately pyriform, transversely ridged, ridges very unequal; seven- or eight-varicose, varices squamate, scales elongated, erect, prickly; white, scales very black brown, brown at the base, ridges black and brown; aperture rather small.


Hab. Guacamayo, Central America (found on the coral reefs at low water); Cuming.

This species was originally described by Mr. Broderip from a young pretty filleted specimen, of which there is a representation in Sowerby’s ‘Conchological Illustrations,’ Murex, Fig. 4. It was considered at that time to be unique, though Mr. Sowerby pronounced it to be 'probably a variety of the Murex princeps in a young state.

The fine full grown shell here figured was obtained by Mr. Cuming in nearly the same locality as the small specimen; other examples since come to hand show their specific connection, and the species now proves to be distinct from the Murex radix in all stages of growth.

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MUREX.
Plate XVIII.

Species 71. (Mus. Cuming.)

Murex cornutus. Mur. testa claviformis, tenui, ventricosa, transversim subtiliter sulcata et striata, spirá subdepressá, suturis profunpidis; septifarium varicosá, varicibus planulatis, spinis duabus tribusve calciculatis longissimis recurvatis armatis; cinereo-fuscis, interdum pustulatis; canali longis, armatis spiralis; labro columellae tenui, erecto-expanso.

The horned Murex. Shell club-shaped, transversely finely grooved and striated, spire somewhat depressed, sutures deep; seven-varicose, varices flattened, each armed with two or three very long cancellate spines; ashy brown, sometimes zoned with fulvous red; canal very long, armed with spiral rows of long spines; columnellar lip thin, erectly expanded.

Variety 3.

Testa lactea.

Shell cream-coloured.


Hab. Mouth of the Gambia, western coast of Africa (found in rocky places); Lieut. Babb.

I have figured the cream-coloured variety of this well-known species for the sake of novelty.

Species 72. (Mus. Taylor.)

Murex Martinianus. Mur. testa trigono-claviformis, transversi nodule, tiris nodulosis, inaequalibus; tririam varicosá, varicibus varispinosis, spinis brevissimis; luteo-vel griseo-carnescente, canalis fuscescentes; aperture ovalis, labro dente planulato, erecto, musito; canalis longissimo, recto, suprae spinoso.

Martini's Murex. Shell trian-gularly club-shaped, transversely ridged, ridges nodulous, unequal; three-varicose, varices few-spined, spines rather short; yellowish or greyish blue, canal brownish; aperture ovate, lip furnished with an erect flattened tooth; canal very long, straight, spined towards the upper part.


Murex varispinus, Sowerby (not of Lamarck.)

Hab. —

A careful examination of the description of Lamarck's Murex varispinus has now led me to believe with MM. Kiener and Deshayes that it more correctly applies to the shell described by Mr. Sowerby under the name of Murex formosus. The figure, however, in Martini's 'Conch. Cab.' to which Lamarck refers for the illustration of that species, affords a characteristic representation of this; and it is unquestionably distinct from the Murex tribulus or any species hitherto described.

For account of Fig. 73, see the following plate, Species 76; and for Species 73, see Plate XIV. Fig. 60.

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**Murex funiculatus.** *Mur. testá clavaformi, transversim tiritát, liríis ad summum tamen funiculatis, costis tribus vel quaternis pliciformibus longitudinalibus inter varicos; trivariós, varícibus spínosis, spínis brevibus, acutís, sursum inclinatis; fuscescente-albá, funiculís transversís castaneis; apertúrá oválá, columnállá labroque intus nodulífera; canalí elongato.*

**The corded Murex.** Shell club-shaped, transversely ridged, ridges corded at the summit, with three or four longitudinal plant-like ribs between the varices; three-varicose, varices spinous, spines short, sharp, inclined upwards; brownish white, transverse cords dark chestnut brown; aperture ovate, columnella and lip noduliferous within; canal elongated.

**Reeve, Pro. Zool. Soc., 1842.**

*Hab. — ?*

An interesting species, well characterized by the fine dark chestnut brown cords with which it is encircled throughout at equal distances.

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**Species 75.** (Mus. Cuming.)

**Murex recurvirostris.** *Mur. testá clavaformi, transversiorum tiritát, costis tribus pliciformibus longitudinalibus inter varicos; trivariós, varícibus grandibus rotundís, spínis pænes brevissimis minutiis varicáti; cinereo-nigrítante, fuscescenté zonát; canalí elongato, recurvó.*

**The recurved beak Murex.** Shell club-shaped, transversely ridged, with three plant-like longitudinal ribs between the varices; three-varicose, varices large, round, marginated with a few very short minute spines; ashly black, zoned with light brown; canal elongated, recurved.

**Broderip, Pro. Zool. Soc., 1832.**

*Hab. Gulf of Nicobari, Central America (found in sandy mud at the depth of about nine fathoms); Cuming.*

The varices of this species are unusually large and swollen, with a minute spine sprouting up here and there.

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**Species 76.** (Fig. 76. Mus. Saul; and Fig. 73, Pl. XIX. Mus. Cuming.)

**Murex ternispina.** *Mur. testá elongato-clavaformi, transversiorum tiritát, liríis pænis, inaequalibus, interstitiís corrugátis; trirátorum varicáti, varícibus spinósis, spínis grádidís, ternís prolongátis, intermissís brevisculis; canalí longissíma, spínos, spínis alternis prolongátis, horizontalibus, alternis brevisculís, erectis; interstíciis transversís; apertúrá oválá, labro deute planulato erecto minuto.*

**The triple-spine Murex.** Shell elongately club-shaped, transversely ridged, ridges small, unequal, interstices wrinkled; three-varicose, varices spinous, spines slender, three very long, alternate ones rather short; canal very long, spinous, spines alternately very long and rather short, the long spines being horizontal, the short ones erect; yellowish or ash grey; aperture ovate, lip furnished with a flattened erect tooth.

**Lamarck, Anim. sans vert. (Deshayes' edit.), vol. ix. p. 567.**

*Hab. Island of Negros, Philippines; Cuming.*

This shell I conceive to be the true *Murex ternispina* of Lamarck, and not that figured for it by Kiener.

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**Species 77.** (Mus. Taylor.)

**Murex brevispina.** *Mur. testá clavaformi, tenaciá, transversiorum tiritát, inter varicos nodóss; trirátorum varicáti, varícibus spínis brevisculis obesíssímus armáti; fuscescente-albá; canalí elongato, superú brevispinó; apertúrá oválá, labro deute planulato erecto minuto.*

**The short-spine Murex.** Shell club-shaped, rather thin, transversely striated, nodose between the varices; three-varicose, varices armed with rather stout short spines; brownish white; canal elongated, short-spined; aperture ovate, furnished with an erect flattened tooth.

**Lamarck, Anim. sans vert. (Deshayes' edit.), vol. ix. p. 567.**

*Hab. Coast of Arabia.*

This species has generally a double row of nodules between the varices.

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**June 1845.**
Species 78. (Mus. Cuming.)

Murex Mindanensis.  *Murex testa elongato-claveformi, transversim tiratâ, costis tribus pliciformibus inter varices; trifariam varicosi, varicibus rotundis, spinis brevibus aculis canaliculatis muricatis; lutescente-albâ, varicibus aurantio-fusco pallide maculatis; canali elongato, inferne sinuate-recurreo.*

The Mindanao Murex. Shell elongately club-shaped, transversely ridged, with three plait-like ribs between the varices; three-varicose, varices round, muricated with short sharp canaliculated spines; yellowish-white, varices spotted with pale orange brown; canal elongated, sinuate recurved at the lower part.

Hab. Cagayan, Island of Mindanao, Philippines (dredged from sandy mud at the depth of twenty-five fathoms); Cuming.

This species has somewhat the appearance of an elongated *Murex rarispina* (*Murex formosus*, Sowerby), divested of its three long anterior spines.
MUREX.

PLATE XX

Species 79 (Mus. Saul.)

Murex nigripinnosus. *Mur. elongato-claviformis, transversa lirata et striata, liris inequalibus, subinvoluti, spirae brunescenti; trichrium varicoso, carinibus spinosis, spinis erecto-elongatis; canali elongato, ad extremitatem levis recurvo, spinoso, spinis longis, subnodosis, perpurpureo-albâ, fasciis tribus vel quadrernis fuso-sessantibus subindistinctè eirnagulatis, spinis purpurosatis setulatis.

The black-spined Murex. Shell elongately club-shaped, transversely ridged and striated, ridges unequal, slightly nodose; spire rather short; three-varicose, varices spinous, spines erectly elongated; canal elongated, slightly curved back at the extremity, spined, spines long, a little curved; purplish white, somewhat indistinctly encircled with three or four light brown bands, spines purple-black.


Hab. — ?

This shell should, I think, be distinguished from the *Murex triboius*, to which it is most nearly allied. Its characters throughout present an agreeable modification which is constant in all the examples I have seen.

Species 80. (Mus. Cuming.)


The plicated Murex. Shell ovately fusiform, ventricose in the middle, transversely finely ridged, ridges narrow, numerous, granosely decussated throughout with minute longitudinal wrinkles, with two plicately elongated tubercles between the varices; three-varicose, varices armed with short unequal canaliculated spines one anterior of which is conspicuous; white, faintly tinged with orange-brown; canal rather elongated, recurved.


Hab. — ?

A fine species, of which I do not remember to have seen any other specimen. The back of it is well figured in Sowerby's 'Conchological Illustrations,' *Murex*, f. 191.

Species 81. (Mus. Saul.)

Murex occa. *Mur. testa claviformi, levii, aut obsolenti striata; anfractibus superius angulis; nodis duobus inter varices ad angulum armatis; trichrium varicoso, carinibus spinosis, spinis longissimis, sursum inclinatis; lato-ante cervico-crvatiformi; canali longissimo, recto, trichium spinoso; apertura ovata, labro dente planulato erecto mamulo.

The hallow Murex. Shell club-shaped, smooth or obsolescently striated; whorls angulated at the upper part, armed upon the angle between the varices with two nodules; three-varicose, varices spinous, spines rather long, bent upwards, yellowish or ash blue; canal very long, straight, armed with three rows of spines; aperture ovate, lip furnished with an erect flattened tooth.


Hab. Island of Nicobar (found in sandy mud); Commodore Laudlin.

An excellent species which may be recognised by the smooth, angular structure of the spire, and the upward inclination of the spines.

Species 82. (Mus. Metcalfe.)

Murex tribulus. *Mur. testa trigono-claviformi, transversa obtusum-lirata, liris alterius majoribus, interstitiis rugosis; trichrium varicoso, carinibus spinosis, spinis longissimis, validis, subobtusis crassis; pallide fultae, liris fusco alboque plus minusquo distinctè articulati; canali longissimo, recurvo.

The Bramblex Murex. Shell triangularly club-shaped, transversely obtusely ridged, alternate ridges the larger, interstices wrinkled; three-varicose, varices spinous, spines rather long, strong, thick at the base; pale fulvous white, ridges more or less distinctly articulated with brown or white; canal very long, recurved.

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*Murex crassispina*, Lamarck (not of Kiener).

*Murex ternispina*, Kiener (not of Lamarck).

*Hab. Eastern Seas.*

M. Deshayes' note on this species in his edition of Lamarck's 'Anim. sans vert.' so admirably exposes the complicated series of errors connected with it, that I cannot do better than give a free translation:

"It is very certain that this species (Murex crassispina, Lamarck), is the same as that named *Murex tribulus* by Linnaeus. Lamarck recognised it himself in citing the Linnaean name at the commencement of his synonymy; and should have restored to the species a name which it ought never to have lost. It is true that Linnaeus refers, amongst others, to some figures of the *Murex ternispina* for the illustration of his *Murex tribulus*; but this confusion, easy to rectify, does not authorise a change of name."

"It should be observed that Lamarck confounded two very distinct species in his synonymy of *Murex crassispina*; one, the true *Murex tribulus* of Linnaeus.—Martini, Conch. Cab. vol. iii. pl. 113. f. 1053, 1350, which name should be adopted; the other, the *Murex tribulus maximus* of Chemnitz.—Conch. Cab. vol. xi. pl. 159. f. 1819, 1820, (for which see Pl. XXII. Fig. 89.), described by Dillwyn under the new title of *Murex scolopaz*. This Murex had been already figured by Martini, Conch. Cab. vol. iii. pl. 113. f. 1052, as a variety of *M. tribulus*; and a further error arises on the part of Mr. Sowerby, in his 'Catalogue of Murexes' in the 'Conchological Illustrations.' For the *Murex crassispina*, Lamarck, he refers to Martini's, f. 1052; and for the *Murex scolopaz*, Dillwyn, to Chemnitz's, f. 1819, 1820, without perceiving that they represent exactly one and the same species. M. Kiener falls into a similar error, and neither author having searched for the origin of these species, they have both committed themselves in not having figured the true *Murex tribulus* at all."

In reference to the latter part of this remark I may observe, that the shell figured by Kiener for the *Murex ternispina* is in my opinion the *Murex tribulus*; the true *Murex ternispina* being correctly figured by Sowerby, Conch. Illus. f. 110, and by myself, Pl. XVIII. f. 73, and Pl. XIX. f. 76, in my account of which the differences between these two so closely approximating species are detailed.
MUREX.

PLATE XXI.

Species 83. (Mus. Cuming.)

Murex chrysostoma. Mur. testa abbreviato-clavoformi, transversum nodosum-striatum, tuberculis tribus aut pluribus inter varices; trirubia varicos, variocibus rotundis, tuberculato-liratis, spina validis brevissimis curvatis ad basem; albicaco-cinereo, luteo tingé et maculaté; columella carinatá, rojo-narantia tingité; canali subelongato, recurvo.

The golden mouth Murex. Shell abbreviately club-shaped, transversely nodosely striated with three or four tubercles between the varices; three-varicose, varices round, tuberculately ridged, with a strong rather short curved spine at the base; olive-ash colour, stained and spotted with yellow; columella wrinkled, stained with rufous orange; canal somewhat elongated, recurved.


Hab. Gulf of Mexico.

This shell is of a peculiar dark olive ash colour, tinged and irregularly stained with yellow; the edge of the lip and of the varices is festooned, in a manner, with reddish brown; and the columellar lip is coloured in places with rich rufous orange.

Species 84. (Mus. Cuming.)

Murex bellus. Mur. testa clavoformi, transversum liratis, liris tuberculato-nodosis; trirubia variocosa, variocibus rotundis, tuberculato-liratis, spinis breviis acutis ad basem; albidum, castaneo-fusco supra et infra maculatum; liris castanea conspicue punculatis, columella labroque rojo-narantia tingitis; canali subelongato.

The pretty Murex. Shell club-shaped, transversely ridged, ridges tubercularly nodulated throughout; three-varicose, varices round, tubercularly ridged, with a short sharp spine at the base; whitish, spotted above and below with chestnut-brown, ridges conspicuously corded with chestnut-brown, lip and columella stained with rufous-orange; canal rather elongated.


Hab. —?

Allied to the preceding species in respect to its rufous orange mouth, but of a different colour and sculpture throughout.

Species 85. (Mus. Cuming.)

Murex tenuispina. Mur. testa elongato-clavoformi, transversum nodosum-liratam, interstitialis rupis longitudinalibus clathratis; trirubia variocosa, variocibus parvis, planisculis, longispinosis; canali elongato, sexforium spinoso, spinarum seriebus alternis longissimis tenubus horizontalibus ad extremitanem adnexit, alternis parvis internodalibus erectis; cinereo-castaneo-fusco, apertura fave nigricante-fusco lineata.

The thin-spine Murex. Shell elongately club-shaped, transversely nodosely ridged, interstices latticed with longitudinal wrinkles; three-varicose, varices small, rather flattened, long-spined; canal elongated, armed with six rows of spines, three rows of very long thin horizontal spines bent inwards at the end, alternating with three rows of small erect intermediate spines; ashy or blueish brown, interior of the aperture lineated with blackish brown.


Hab. Eastern Seas.

No one can fail to admire the very delicate and beautiful structure of this well-known species.

Species 86. (Mus. Cuming.)

Murex rarispina. Mur. testa trigono-clavoformi, transversum nodosum-liratum; trirubia variocosa, variocibus spinosis, spinae triangulari prelongata, subcurvata, ceteris brevissimis irregularibus; fasciiscentis, roseo-violascente tingitum; canali subelongato, ascendente.

The rare-spine Murex. Shell triangularly club-shaped, transversely nodosely ridged; three-varicose, varices spinous, the anterior spine of each very long, a little curved, the rest very short, irregular; pale brown, tinged with pinkish violet; canal somewhat elongated, ascending.


Murex formosus, Sowerby.

Hab. —?

I quite agree with MM. Kiener and Deshayes in assigning this shell to Lamarck’s Murex rarispina; but the mischievous tendency of an observation in reference to it by M. Kiener must be exposed. It it stated by that author

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that “the varieties of the *Murex rarispina* are very numerous, and have served for the establishment of several species which cannot be preserved, such as the *M. plicatus, pliciferus, and Mollonensis*. It is only necessary to refer my readers to the descriptions and figures of those species to show that M. Kiener must have been totally unacquainted with them, for their specific characters are really determinable at a glance.

Species 87. (Mus. Cuming.)

*Murex plicatus.* Mur. testa, abbreviato-clawiformi, crassiuscula, transversim nodoso-lirata, longitudinaliter plicata; trifurian varicosum, varicibus rotundis, spinosis, spines brevibus, obtusis; canali subelongato, recto, trifurium spinoso, spines obesus, longioribus; purpureo-cierno tinctae et fasciatae.

The Plicated Murex. Shell abbreviately club-shaped, rather thick, transversely nodosely ridged, longitudinally plicated, three-varicose, varices round, spinous, spines short, obtuse; canal somewhat elongated; straight, armed with three rows of stout longer spines; pale brown, tinged and banded with purple ash colour.


**Hab.** Gulf of Nicoiyo (found in coarse sand at the depth of twelve fathoms); Cuming.

No two species of a group could be pronounced to be more truly distinct than this and the *Murex rarispina*. The latter is a light delicately formed shell, distinguished by the prominent development of the extreme anterior spine of each varix over the rest which are very short, irregular, and scale-like; the latter is a shell of rather rude obtuse structure, in which the spines are stout and solid, and exhibit this peculiarity of distribution,—that whilst upon the varices they are extremely short and in some cases almost obsolete, upon the canal they are comparatively long.
Species 97. (Fig. 87, H.M. The King of Denmark.)

*Murex trigonulus.* *Mur. testa trigono-sussiformis, curvata, transversis nodosae-lirata, ad basem striata et costata, longitudinaliter plicata; trifaria varicosa, variabilis tuberculifera, ad basem plicata-laminata; canali sublongato-recundo, laticente-utata, roseo tinclata et nebuloa, macularum quadratarum fuscescentium seriebus duobus ornata.

The triangular Murex. Shell triangularly fusiform, curved, transversely nodosely ridged, striated and ribbed at the base, longitudinally plicated; three-varicose, varices tuberculifera, plicata-laminata at the base; canal somewhat elongately recurved; yellowish white, stained and clouded with pink, ornamented with two rows of square pale brown spots.

*Hab.* Senegal.

This important shell, from the private collection of H.M. The King of Denmark at Copenhagen, is the only example of the species that I have seen with the canal properly developed. Those figured by Sowerby, Kiener, and in the 'Encyclopédie Méthodique,' being worn specimens, and all having the delicate recurved canal positively broken off. It may be recognised by the characteristic plicated lamina into which the varices terminate at the base, and by its strong scarlet-pink colouring.

It may be as well to repeat that the *Murex trigonula* and *trigonulus* are figured in the 'Encyclopédie Méthodique' and by Kiener, the one for the other.

Species 88. (Mus. Cuming.)

*Murex motacilla.* *Mus. testa elongato-claveformi, cussinsecta, transversis lirata, livia angustis, subnodosis, tuberculis prominentibus inter varices; trifaria varicosa, variabilis rotundata, spinis brevibus acutis antiquis rotundis, postice laminata et pinosa-squamatum; canali attenuata, laterali recurvo; albicans, maculis foetis rustico-fuscis profuso tinclata.

The wagtail Murex. Shell club-shaped, rather thick, transversely ridged, ridges narrow, slightly nodose, with two prominent tuberules between the varices; three-varicose, varices round, armed anteriorly with a sharp short spine, posteriorly laminated and spinosely sealed; canal attenuated, laterally recurved; whitish, profusely stained with reddish brown bands and blotches.

*Hab.* Senegal.

This shell which Lamarck describes for the *Murex motacilla* of Chemnitz, is one of very opposite character, now known to conchologists as the *Murex elegans*; his var. *b.* is the true species.

Mr. Sowerby described the *Murex elegans* in the 'Proceedings of the Zoological Society' for 1810, and figured it in his 'Conchological Illustrations,' f. 84, without discovering it to be Lamarck's *Murex motacilla.* He moreover published a drawing of another shell at Fig. 69, as a variety of *Murex motacilla,* which has little or no affinity with it, and which I propose to distinguish by the new title of *Murex articulatus.*

M. Kiener very properly distinguishes, and correctly figures, the *Murex elegans* and *motacilla,* confounded together by Lamarck; but ludicrously applies to his *M. motacilla* the description which Lamarck drew up from the now called *M. elegans.*

Species 89. (Mus. Brit.)

*Murex scolopax.* *Mur. testa elongato-claveformi, brevi, ant transversis obsolete striata et lirata, livia distans; trifaria varicosa, varieolos spinosis, spinos solidinsculis, subdistantibus, sursum inaequata; canali sericeo-fuscio, spinis rotundis, spinis fortibus longi-sinuatis, horizontalibus, alternis spinis minutis erectis; albicans, livia transversis conspicue aurantiaco-fuscis.

The woodcock Murex. Shell elongately club-shaped, smooth or transversely obsolete striated and ridged, ridges distant; three-varicose, varices spinous, spines rather solid, somewhat distant, bent upwards; canal armed with six rows of spines, one row with the spines strong, very long, and horizontal, alternating with the other, having the spines minute and erect; whitish, transverse ridges conspicuously coloured with orange-brown.

*Hab.* Persian Gulf.

This species may be distinguished, amongst other characters, by the narrow transverse orange-brown bands.

June 1845.
Species 90. (Mus. Cuming.)

Murex messorius. *Murex testa claviformi, transversim tuberculata et nodosa, interst.itia leviter corrugata; trifurca varicosae, varicibus rotundis, tuberculato-lirate, spinis tribus acutissimis armati, una anterior brevi, duobus posterioribus longioribus curvatis; canal subelongato; olivaceo, rufo-fusco minutissimo et densissimo undato; columnella labroque interdentato-corrugata.*

The reaping-hook Murex. Shell club-shaped, transversely tuberculated and noduled, interstices slightly wrinkled; three-varicose, varices round, tubercularly ridged, armed with three very sharp spines, one anterior, short, two posterior, longer, curved; canal rather elongated; olive, very minutely and thickly waved with reddish brown; columella and lip dentately wrinkled within.


*Hab. —?*

The painting and sculpture of this species approximates very closely to that of the *Murex chrysostoma*, except in the absence of the bright rufous-orange colour of the columella. In form it is smaller, more erect, and angulated.

Species 91. (Mus. Cuming.)

Murex rectirostris. *Murex testa claviformi, spira surtis excavatis; transversim elevato-striata, longitudinaliter noduloso-costata; trifurca varicosae, varicibus rotundis, pone excavatis, spinis unica brevi, acute, antice armatis; canal elongato, recto; fuscenscente, fusco maculato-fasciata.*

The straight-beak Murex. Shell club-shaped, sutures of the spire excavated, transversely elevately striated, longitudinally nodulously ribbed; three-varicose, varices round, excavated behind, armed anteriorly with a single short sharp spine; canal elongated, straight; pale brown, banded in a blotchy manner with darker brown.


*Hab. Xipixapi, West Colombia (dredged from sandy mud at the depth of eleven fathoms); Cuming.*

Well characterised by its straight erect growth, pale brown colouring, and other minor peculiarities.
Murex, Pl. XXIII.
Species 92. (Mus. Cuming.)

**Murex nigrescens.** *Mar. testa claveformis, transversis liratæ, tiritis anguis, prominentibus, longitudinaliter nodoso-costatis; trifurcian varicosæ, varicibus rotundis, solidis, nodiferis, spinis perpanis minutis subholocernis inferior seminitis; nigrescente-olivaceæ, blackish-olive, *Murex a* three-varicose, yelowish-brown fuscescente, septifariam canali yellowish, aperturd 68.

**The blackish Murex.** Shell club-shaped, transversely ridged, ridges narrow, prominent, longitudinally nodosely ribbed; three-varicose, varies round, solid, nodiferous, with a very few rather obscure minute spines at the lower part; blackish-olive, painted with two black bands; canal elongated.

**Sowerby, Pro. Zool. Soc., 1840.**

**Hab.** Xipipapi, West Columbia (found in sandy mud at the depth of eleven fathoms); Cuming.

This species, although closely approximating to the *Murex recurvoirostris*, exhibits differences which may be recognised by careful comparison; it it more ventricose, and the spire more elevated.

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Species 93. (Mus. Cuming.)

**Murex adunco-spinosus.** *Mar. testa claveformis, transversis fortiter liratæ, longitudinaliter plicato-costatæ; trifurcian varicosæ, varicibus rotundis, spinis fortibus brevissimis leciter aduncis, spinis minutis intercrecentibus, arnatis; lutescente-fuscesce; canali elongato, superum spinosum.

**The hooked-spine Murex.** Shell club-shaped, transversely strongly ridged, longitudinally plicate-ribbed; three-varicose, varies round, armed with rather short, strong, slightly hooked spines, with minute spines intervening; yellowish-brown; canal elongated, spinous at the upper part.

**Beck; Murex teresipina, var., Sowerby, Conch. Illus. Cat., Murices, no. 2. f. 68.**

**Hab.** Philippine Islands; Cuming.

The leading characteristic features of this shell are so peculiar and constant that I am induced to follow Dr. Beck in arranging it as a species distinct from the *Murex teresipina*. The spines are shorter, the ridges are much more strongly nodulous, and all the examples I have seen are of a certain brownish yellow colour.

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Species 94. (Mus. Sarm.)

**Murex tumulosus.** *Mar. testa elongato-claveformis, transversim subgranoso-liratæ et striatæ, spirā depressa, sutures profunde excavata, subcavernosa, apice acuminato; septifariam varicosē, varicibus rotundis, paulo excavatis, tribus vel quaterius ultima spinis squamiformibus duobus brevissimis divergentibus ornatis; lutescente, aurantio-fusco hic illic fuscæ et maculatæ; canali longissimo, recto, spiraliter spinoso.

**The tumulous Murex.** Shell elongately club-shaped, transversely somewhat granosely ridged and striated, spire depressed, sutures deep, excavated, somewhat cavernous, apex acuminate; seven-varicose, varicis round, excavated behind, the three or four last varices armed with a diverging pair of rather short scale-like spines; yellowish, stained and spotted here and there with orange-brown; canal very long, straight, spirally spinous.

**Sowerby, Pro. Zool. Soc., 1840.**

**Hab.** —?

I quite agree with Mr. Sowerby in his estimation of this unique and valuable species; a hybrid, as it were, between the *Murices cornutus* and *branarius*, but presenting an assemblage of peculiarities distinct from either.

M. Kiener asserts that this shell is merely a variety of the *Murex cornutus*, but I cannot see what right he has to question the validity of any of those species described in the "Proceedings of the Zoological Society," which he has never had an opportunity of seeing.

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Species 95. (Mus. Cuming.)

**Murex haustellum.** *Mar. testa elongato-claveformi, transversi striatæ, longitudinaliter nodoso-plicatæ; tresvaricosæ, varicibus rotundis, multicæ; fuscocentæ, lineis spadiceis elongatæ; varicibus nodosis quadratis nigricantibus cirralibus, saepe subcavernis, rotundatis; canali longissimo, gracilis, spinis squamiformibus brevibus perpanis superne maculato; aperturā rotundato-ovulata.

**The snipe's head Murex.** Shell elongately club-shaped, transversely striated, longitudinally nodosely pliement; three-varicose, varices round, spineless; pale brown, encircled with rusty-brown lines, varices ornamented.

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**August 1845.**
MUREX.—Plate XXIII.

with square blackish-brown spots, lip and columella red; canal very long, slender, furnished at the upper part with a very few short scale-like spines; aperture rotundately ovate.


Hab. Ceylon, Mauritius, &c.

This well-known species is found abundantly throughout the regions of the East. The magnificent specimen here figured was collected by Mr. Cuming at the Philippine Islands.

Species 96. (Mus. Taylor.)

**Murex Brandaris.** *M. testa clavaformis, transversim subirregulariter tiritat et striatâ; sexfariam varicous, varicibus planulatis, nunc muticis et tuberculatis, nunc spinis squamaeformibus duabus breviceusulis divergentibus armatis; luteo-fuscascens, columellâ et aperture fonce intescentibus; columellâ sepe latissimê inflatâ; canali subelongata.*

**The Strait-spined Murex.** Shell club-shaped, transversely somewhat irregularly ridged and striated; six-varicose, varices flattened, spineless and tubercled, sometimes armed with two rather short diverging scale-like spines; yellowish-brown, columella and interior of the aperture yellowish; columella often very widely inflated; canal rather elongated.


Hab. Mediterranean.

This well-known Mediterranean species, like its fellow-inhabitant the *Murex trunculus*, is extremely variable in its growth, examples being frequently seen without a single spine.
Species 96. (Mus. Cuming.)

**Murex securus.** *M. testá subpyriformi-ovatá, transversim liratá, scabrosá, spirá brevi, caverno-sás; quinquefurian varicosás, carios ultimó dilatató, planifrons, frontibus numerosís, confertís, canali-culátís; albá, nigricante-fuscó tinctá; canál brevisculus, planulato.

The next-allied Murex. Shell somewhat pyriformly ovate, transversely ridged, scabrous, spire short, caverno-sás; five-varicosás, last varix dilatato, faltly frondos, fronds numerous, close-set, canaliculated; white, stained with blackish brown; canal rather short, flattened.


_Hab._ Island of Masbate, Philippines (found on the sands); Cuming.

This is the "next-allied" species to the *Murex scorpio*; from which it differs in the spire not being deeply sutured, more like that of the *Murex ruta*, and in the marginal varix having none of the large palmed fronds.

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Species 98. (Fig. a and b, Mus. Cuming.)

**Murex salebrosus.** *M. testá elongato-ovatá, sub-pyriformis, scabrosá, spirá interdum brevi, interdum elatá, angulato-turrítá; secrifurian varicosás, varicosás nodoso-lamínatis, nonnullius sepé obsoletís; anfractibus superfés plus minusse angulatis, ad angulíus irregulariter obtúss nodosis; fuscécens, fósco fuscó-secatis; aperturá subangustá, albá, columellá labroque aurantio-rrubís, labro dentato; canál brevi.

The rugged Murex. Shell elongately ovate, somewhat Pyrula-shaped, rough, spire sometimes short, sometimes elevated, angularly turreted; six-varicosás, varices undulately laminated, some often obsolete; whors more or less angulated at the upper part, irregularly obtusely nodulated at the angle; pale brown, banded with dark brown, aperture rather narrow, white, lip and columella orange-red, lip toothed; canal short.


_Hab._ Panama (found under stones); Cuming.

I cannot agree with Mr. Gray in regarding this shell, of which numerous specimens are to be found, as a variety of the *Murex vitulinus*. It is of extremely variable growth, as the specimens selected for illustration show, but they all exhibit one uniform peculiarity of character.

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Species 99. (Mus. Cuming.)

**Murex elegans.** *M. testá contorto-claviformi, crassusculá, transversim liratá, liris angustís, ad omnínutam minímé grávoso-funiculátis; trifuríarum varicosás, varícosás rotundís, hie illí obscurè spinóso-plicátis; albá, funiculó-transversis utílè castánno-fusíceis; canálí longíssimá, gracíli, oblúque contortó.

The elegant Murex. Shell contortly club-shaped, rather thick, transversely ridged, ridges narrow, minutely granuliously corded; three-varicosás, varices round, here and there obscurely spinously plicated; white, transverse cords bright chestnut brown; canal rather long, slender, obliquely contorted.

Beck; Sowerby, Conch. Illus. Cat. Murexes, no. 19. f. 84. 

_Hab._ Island of St. Domingo, West Indies.

Easily distinguished by its peculiarly contorted growth, and the neat appearance of its entire surface being crossed by a series of equi-distant fine brown thread-like cords.

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Species 100. (Mus. Brit.)

**Murex calcar.** *M. testá trigono-fusiformi, transversim liratá, liris alternís majoribus, interstílis, subscabra-sís, costís nodoso-plicátis tribús longitudinalibus inter varícosás; trifuríarum varicosás, varícosás peculiárír fimbriato-lamínatis, spiná longíssimá recurvé superíe armá-tis; albá, ferrugineo-fusco hie illí pallide tinctá; canálí mediocrí.

The spur Murex. Shell triangularly fusiform, transversely ridged, alternate ridges the larger, interstices somewhat scabrous; with three longitudinal nodosely plicated ribs between the varices; three-varicosás, varices peculiarly fimbriately laminated, armed at the upper part with a rather long recurved spine; white, palely tinged here and there with rusty brown; canal middling.

August 1845.


_Hab._ — ?

This shell approximates very closely to the *Murex Senegalensis*, but I still think with M. Kiener that it may be distinguished as a species; the horn-like spines are longer, and they are webbed at the base with a delicate lamina, which in the *Murex Senegalensis* is folded down, as it were, upon the varix.

Species 101. (Mus. Cuming.)

*Murex Senegalensis*. *Mur. trigono-fusiformi, transversa tiratâ, liris numerosis confertis, interstitis minutâ scabrosis, tuberculis duobus grandibus inter varices; trifarian varicosâ, varicibus rotundis, spinâ brevissimâ recurvâ ad angulum ornatâ; livido-fusca; canalâ mediocri.*

_The Senegal Murex._ Shell triangularly fusiform, transversely ridged, ridges numerous, close-set, interstices minutely scabrous, with two large tubercles between the varices; three-varicose, varices round, armed with a rather short recurved spine at the angle; livid brown; canal middling.


_Le Sirat_, Adanson, Voy. en Sénégal, pl. 8. f. 19.

_Hab._ Senegal; Brazil.

Lamarck appears to have omitted mention of this species, and referred to Adanson's figure of it for the illustration of his *Murex anguliferis*. 
MUREX.

PLATE XXV.

Species 102. (Mus. Cuming.)

Murex Purpurea. Murex testa ovato-oblonga, basa versus attenuata, sacer; septifarium vel octofarium varicoso, varicibus obtuso-nodosiis; murantio-lutescente, varicis partibus inferioribus nodisque nigricantibus; aperture pyriformi-ovata; labro intus denticulato.

The Purpurea Murex. Shell ovately oblong, attenuated towards the base, rough; seven- or eight-varicose, varies obtusely nodose; orange-yellow, nodules and lower parts of the varices blackish; aperture pyriformy ovate; lip denticulated within.

Murex miliaris, Gmelin.
Murex vizulinus, Lamarck.
Hab. West Coast of Africa.

The entire surface of this shell is peculiarly rough and scabrous, and the varices are distinguished by their large blunt rounded nodules.

Species 103. (Mus. Cuming.)

Murex trilineatus. Murex testa abbreviato-fusiformi, utrinque attenuata, solidi-annulata, transversum regulariter trinito, longitudinale varicosi, varicibus rotundatis, spinis brevissermis squamosiformibus his illic arvatis; alba, fist castaneo-fusciis tribus distinctis transversum lineata; aperture rotundata, labro intus denticulato-ovato; canali longissimo, gracili, ascendent.

The trilineated Murex. Shell abbreviately fusiform, attenuated at both ends, rather solid, transversely regularly ridged; longitudinally pliately ribbed; three-varicose, varices round, armed here and there with very short scale-like spines; white, encircled with three distant chestnut-brown thread-like lines; aperture round, lip dentically striated within, canal rather long, slender, ascending.

Hab. Gulf of Mexico.

A white shell, distinguished by three brown thread-like cords crossing it at rather distant intervals.

Species 104. (Mus. Metcalfe.)

Murex concinnus. Murex testa elongato-claviformi, longi-

transversim subobsoleti plicato-costata, transversim extr.
miti lirate, tiranum interdistius minuissimae squamatis; trinervosae, varicosib spinosis, spinis brevissermis graciibus erecta acutis; pallide fuscentes, fistis castaneo-fuscisis, quarn tribus saturatioribus, cingulatis; canali gracili, longissimo, recto, superno spinoso.

The new Murex. Shell elongately club-shaped, longitudinally rather obsoletely pliately ribbed, transversely delicately ridged, interspaces between the ridges very minutely scaled; three-varicose, varices spiny, spines rather short, slender, erect, sharp; pale light brown, encircled with chestnut-brown thread-like lines, three of which are of deeper colour than the remainder; canal slender, very long, straight, spiny at the upper part.

Hab. —?

An extremely delicate and elegantly formed shell in which the coloured thread-like lines, as in the preceding species, of another form, are very characteristic.

Species 105. (Mus. Cuming.)

Murex rota. Murex testa oblongo-ovata, terebrata aut obsoleti scabrosae, spirae brevi, cavernosae; septifarium varicoso, varicosibus quaternis spinis scabrosis frondibus platis, canaliculatis, ad apicem dilatatis et peculiariter palmatis, ornatis; nunc; canali brevissimo.

The water-wheel Murex. Shell oblong-ovate, smooth or obsoletely scabrous, spine short, cavernous; seven-varicose, last four or five varices ornamented with flat canaliculated fronds, dilated and peculiarly palmated at the summit; snowy white; canal rather short.

Sowerby, Conch. Illus. Cat. Murices, no. 73, f. 119.
Hab. Molucca and Philippine Islands.

It is strange that this well-known species should not have been distinguished either by Lamarck or Deshayes. It differs from the Murex scorpio not only in having four or five of the varices handsomely palmated, but is of a different form; the body whorl being fuller and not separated from the penultimate whorl by so deep a suture; the canal moreover is shorter.

August 1845.
Species 106. (Mus. Cuming.)

*Murex scorpio.* _Mus._ testá elongato-oratá, gracilli, sub-
fusiformi, spirá brevi, suturis profunulis et latis; quin-
quefarinarum variocó; variice ultima frondibus planis can-
aliculátis, ad apicem dilatatis et peculiariter palmátis,
ornát; nigricante-fusca, interdum albá; aperturá
parvá; canali longinuca, frondosa.

The _scorpio_ _Murex._ Shell elongately ovate, slender,
slightly fusiform, spire short, sutures very deep and
broad; five-varicose, last whorl ornamented with
flat canaliculated fronds, dilated and peculiarly
palmated at the summit; blackish-brown, sometimes
white; aperture small; canal rather long, frondose.

_Linnaeus_, Syst. Nat., 12th edit., p. 1215.

_Hab._ Molucca and Philippine Islands.

It cannot be denied that a very close affinity exists
between this and the preceding species; but it may be as-
serted without hesitation, that the differences are positive
and constant. In addition to those already enumerated,
it may be observed, that the varices are always fewer in
number, and the last two or three are entirely separated
from the penultimate whorl by the deep wide suture.

Species 107. (Mus. Cuming.)

*Murex nodatus.* _Mus._ testá abbreviato-fusiformi, subelavo-
tá, utrinque attenuatá, longitudinaliter subplicatá, trans-
sversim lirátá, liris nodiferis; triradiarum varicosá, vari-
cibus rotundis, spinis brevibus acutis arnatis; intero-
frondescite, lineis fasciis inter nodos cingulatá; canali
longinuca, gracilli, obliquè ascendeente.

The _nodatus_ _Murex._ Shell abbreviately fusiform, clavate,
attenuated at both ends, longitudinally subplicated,
transversely ridged, ridges nodiferous; three-varicose,
varices round, armed with sharp small spines; yel-
lowish-brown, encircled between the nodules with
brown lines; canal rather long, obliquely ascending.


_Hab._ —?

This shell was figured in the Conchological Illustrations
by Mr. Sowerby, as a variety of the _Murex natucilla_, with
which species he was probably not at the time acquainted,
as it bears little or no affinity with it.

Species 108. (Mus. Saul.)

*Murex similis.* _Mus._ testá abbreviato-fusiformi, spirá
subturríta, auffractibus superíbus subangulatis, transversim
obsoléte striátis, tuberculis tribus nodiferis inter varices;
triradiarum varicosá, variocibus spinis brevisimis acutis
arnatis; intra-albicante, fasciis duabus aurantio-fus-
cesecentibus lauaescensis distantius cingulatá; aperturá
rotundulo-oratá, lobro colauellari subconspicuo; canali
longinuca, obliquè ascendeente.

The _similar_ _Murex._ Shell abbreviately fusiform, spire
somewhat turreted, whorls a little angulated at the
upper part, transversely obsolete striated, with three
nodiferous tubercles between the varices; three-varic-
ose, varices armed with very short sharp spines;
yellowish white, encircled with two rather wide orange-
brown bands; aperture roundly turreted, columellar
lip rather conspicuous; canal rather long, obliquely
ascending.


_Hab._ —?

This is a very excellent species, and perfectly distinct
from the preceding, a comparison with which is recorded
by Mr. Sowerby in the Pro. Zool. Soc., 1840, p. 140,
under the impression of its being the _Murex natucilla._
Murex.

Plate XXVI.

Species 109. (Mus. Belcher.)
Murex gyratus. Mus. testá fusiformis, costís transversís minutís, annuerosis, elegantem curtatis, unulentè sculptís; spirá acuminato-turrítá; unfractibus superne depressedis, medio carinatis, cariná prominente, plano-convexá, cre- natá; albicante; canali subsecuro.

The turned Murex. Shell fusiform, sculptured throughout with numerous minute elegantly rounded transverse ribs; spine acuminately turreted; whorls depressed at the upper part, keeled round the middle, keel prominent, flatly convex, crenated; whitish; canal a little curved


Hab. Straits of Mackassar (found in course sand at the depth of seventeen fathoms); Cuming.

The entire surface of this shell is crossed with fine delicately crenulated ribs.

Species 110. (Mus. Cuming.)
Murex Blainvillii. Mus. testá subglobularo-ovati, transversim elevato-strictá; septíforum vel septíforiánum varicosi, varicibás obscure squamosis aut nodulosis; fasciá aut fusco-rubente, interdum albífusciáte, aperture fauce violáscente; columnellá basae versus leviter plicatá, labro integro noduloso; canali brevissimo.

Blainville's Murex. Shell somewhat cylindrically ovate, transversely elevated and striated; six- or seven-varicose, varices obscurely scaled or nodulated; brown or brownish-red, sometimes banded with white, interior of the aperture violet; columnella slightly plaited towards the base, lip nodulated within; canal very short.

Payrandeau, Cat. Moll. de la Corse, pl. 7. f. 17, 18.

Murex crista'tus, var., Philippi.

Hab. Sicily.

It is true that this species presents merely a modified growth of the Murex crisatus, but that modification is of so marked a character that I have maintained Payrandeau's distinction.

Species 111. (Mus. Cuming.)
Murex dipsacus. Mus. testá fusiformis, spirá angulato- turrítá, septíforiánum vel octíforiánum varicosi, varicibás frondosís, frondiibás squamaformibus, brevibus, nume- rosis, varicibás interstitibus, elevato-liratis, quasi cancellatís; albidá, fasciá uníca fuscoscenté indistincté pictá; canali brevimsculo.

The teastle Murex. Shell fusiform, spine angularly turreted; seven- or eight-varicose, varices frondose, fronds scale-like, short, numerous, interspaces between the varices elevatedly ridged, as if cancelled; whitish, indistinctly painted with a single light brown band; canal rather short.


Hab. St. Elena, West Columbia (from a rocky bottom at the depth of twelve fathoms); Cuming.

A beautifully formed shell in which the sculpturing is laid in most symmetrical order.

Species 112. (Mus. Cuming.)
Murex crista'tus. Mus. testá oblongo-ovati, transversim lirátá; unfractibus superne subdepresso-angulatis, septíforiánum varicosi, varicibás squamosis, squamosis promediiatibás solidímentibus; albicante, roseo aut rubro-turrítá; columnellá basae versus leviter plicatá, labro integro noduloso; canali brevissimo.

The crested Murex. Shell oblong-ovate, transversely ridged; whorls somewhat depressingly angulated at the upper part, seven-varicose, varices squamate, scales prominent, rather solid; whitish, stained with pink or red; columnella slightly plicated towards the base; lip nodulated within; canal very short.

Brocchi, Conch. Foss., p. 394. pl. 7. f. 15.

Hab. Sicily.

The main distinction between this species and the Murex Blainvillii consists in the upper portion of the whorls being more angularly turreted, and the fronds much more prominently developed.

Species 113. (Mus. Cuming.)
Murex lepidus. Mus. testá oblongo-ovati, transversim lirátá, türis convexis, subirregularibus, confertis; octofaríum varicosum, varicibus frondosis, frondibus brevibus confertis; albidá, frondibus nigricantibus; canali brevimsculo.

The pretty Murex. Shell oblong-ovate, transversely ridged, ridges convex, somewhat irregular, close-set; eight-varicose, varices frondose, fronds short, delicate, close-set; whitish, fronds blackish; canal rather short.


Hab. — ?

August 1845.
The fronds are of a blackish-brown colour, whilst the remaining parts of the shell are pale greenish or blueish white.

Species 114. (Mus. Cuming.)

Murex festivus. *Mur. testá oblongo-fusiformi, crosso-

iscutellá, transversá lineari-antenná, interstíliis liriqué

intercostális mináté granulátis; trivéricósá, vari-

cibus, incrustá-is laminátis, recurvá, surpérn écri-

tátis; fulvescenté, lineis fuscis angularibus cingulará; ap-

turná parce; canali breviscelto.

The festive Murex. Shell oblong-fusiform, rather

thick, transversely linear-grooved, grooves and in-

tervening ridges minutely granulated; three-varicose,

variae forming a recurved thickened lamina, crested

at the upper part; pale fulvous brown, encircled with

fine brown thread-like lines; aperture small; canal

rather short.

Hinds, Mollmsca, Voy. II. M. S. Sulphur, p. 9. pl. 3. f. 13, 14.

*Hab.* Bay of Magdala, California (dredged from a sandy

floor at the depth of seven fathoms); Hinds.

This species may be easily known by the peculiarly re-

curved structure of the varices.

Species 115. (Mus. Suld.)

Murex laqueatus. *Mus. testá trigono-ovatá, unirnque

attenuatá, transversà undique costálat, costis levigatís,

tubérculó magno inter varícés; trivéricósá, varičibus

fimbriato-laminatis, quasi laqueatis; albá, roseo linctá;

aperturá parce; canali breviscelto.

The channelled Murex. Shell trianugy lar ovate, at-

tenuated at both ends, transversely ribbed through-

out, ribs smooth, with a large tubercle between the

varices; three-varicose, variae fimbrilaty laminated,

as if channelled; white, tinged with pink; aperture

small, canal rather short.


*Hab.* — ?

The varices of this shell are composed of a regularly

channelled frill to which I know of no similar structure in

any other species. It has little or no affinity with the

Murex tripterus.

Species 116. (Mus. Cuming.)

Murex dubius. *Mus. testá oblongo-ovatá, transversà

subtiliter elevato-striatá; anfractibus superi é angulátis,

septífríarbon varicosís, varícis squamatis, squamis so-

lidululatis, ad angulum gramina in prominentibus, infra

gradatim minoribus; atbida, nigrìcante-fusco varia; labro

intus nodatoo, canali breviscelto.

The doubtful Murex. Shell oblong-ovate, transversely

finely elevaté straited; whors angulated at the

upper part, seven-varicose, variae squamate, scales

rather solid, large and prominent at the angle, gra-

dually smaller beneath; whitish, variegated with

blackish brown; lip nodulous within, canal very short.

Sowerby, Conch. Illus., f. 23.

*Murex acutus.* Wood (not of Lamarck.)

*Hab.* Panama; Cuming.

An aberrant species of Murex scarcely coming within

the generic limit of the group.

Species 117. (Mus. Cuming.)

Murex laminiferus. *Mus. testá ovatá, spirá angulato-
territá; anfractibus ventricosis, superi é angulátis,

octófríarbon varicosís, varícis squamatis laminatís,

interstíliis costátis, quasi cancellátis; albá, roseo angu-

sto unico fuscescente superne cingularít; canali brevi-

It.

The laminiferous Murex. Shell ovate, spire angula-

terrected; whors ventricose, angulated round the

upper part; eight-varicose, varices simple, lamin-

ated, interstices ribbed, as if cancelled; whitish, en-

circled round the upper part with a single narrow

brown belt; canal short.


*Hab.* — ?

The ventricose growth of this shell is a little peculiar.

Species 118. (Mus. Cuming.)

Murex tetragonus. *Mus. testá subrotundato-ovatá,

spirá interdum subpyramidált; transversá costálat,

costis foraminátis, interstíliis confluentis cancellátis;

quadráfríarbon varicosís, varícis solidís, rotundátis, pone

caverñosis; albá; canali brevi, ascendente, peculiarit

abrupti recurvo.

The quadangular Murex. Shell somewhat rotun-

dately ovate, spire sometimes pyramidal; transversely

ribbed, ribs pierced with holes, interstices closely

cancelated; four-varicose, varices solid, rounded, ca-

verous behind; white; canal short, ascending, pecu-

liarly abruptly curved back.


*Hab.* — ?

I cannot discover any specific difference between the

Murex tetragonus and breviculus; it is a species in which

the growth is more pyramidal in some examples than in

others, but the sculpture is invariable the same.
MUREX.

Plate XXVII.

Species 119. (Mus. Belcher.)

**Murex hamatus.** *Murex testá ovátá, basem versus subattenuatá, anfractibus superné angulatís, sesíarias variócosis, varicibus alatis, laciníis retrorsum hauatíis, interstíliis transversís costátis, areis quadrátis formantibus; pallide latre-fuscéscéntes; labro dente parvo inferiori mutíto; canali brevíscolo.

The hooked Murex. Shell ovate, somewhat attenuated towards the base, whors angulated at the upper part, six-varicose, whors winged, lappets hooked backwards, interstices transversely ribbed, forming square areas; pale yellowish brown; lip furnished at the lower part with a small tooth; canal rather short.

**Hinds,** Mollusca Voy. II. M. S. Sulphur, p. 8. pl. 3. f. 11, 12.

**Hab.** Bay of Guaynapul (dredged from a muddy floor at the depth of twenty-one fathoms); Hinds.

An interesting new species bearing some distant affinity with the *Murex monoceros.*

Species 120. (Fig. a and b, Mus. Cuming.)

**Murex hexagonus.** *Murex testá fusiformi-ovátá, hexagoná, anfractibus superné subangulatís, sesíarias variócosis, varicibus spinis aculeiformibus armátis, varicórum interstíliis transversís tiralis, areís concavís oblongoquadратís formantibus; interstíciis, spinis interdum roso-purpurascéntibus; canali subelongato.

The hexagonal Murex. Shell fusiformly ovate, six-sided, whors slightly angulated at the upper part, six-varicose, varices armed with prickly-like spines, interstices between the varices transversely grooved, forming oblong-quadrate concave areas; yellowish, spines sometimes rose-purple; canal rather elongated.

**Lamarck,** Anim. sans. vert. (Deshayes ed.), vol. ix. p. 553. **Hab.** Island of St. Thomas, West Indies.

In some examples of this excellently defined species the prickly-like spines are of a beautiful rose-purple colour.

Species 121. (Mus. Cuming.)

**Murex lingua-vervecina.** *Murex testá subpyrifórmis, ovátá, lavegitá, ant pecúneranter semírosá, inferiori contractá, spirá brevi, acuti; anfractibus superné depresso-caverosis, trivárícosis, variciis laminatis, varicórum interstíliis obtuso-costatís, tuberculo magno rotundato; albó, nigricante-fusco sepé tinctá et variegáta; canali brevisculo, attenuato.

The sheep's tongue Murex. Shell somewhat pyriformly ovate, smooth, or peculiarly seaborous, contracted at the lower part; spire short, sharp; whors - depressely cavernous at the upper part, three-varicose, varices laminated, interstices between the varices obtusely ribbed, with a large rounded tubercle; white, often stained and variegated with blackish brown; canal rather short, attenuated.

**Chemnitz,** Conch. Cab. v. 10. pl. 161. f. 1540-1.

**Le Jaton,** Adanson.

**Murex gibbosus,** Lamarck.

**Murex lingua,** Dillwyn.

**Hab.** Island of Goree, West Africa (dredged from sandy mud at a depth of about thirty fathoms); Belcher.

This is truly *Le Jaton* of Adanson; the shell figured by Sowerby, under the corrupt name *Jatonus,* in the Conchological Illustrations, Fig. 60, is the *Murex hemitripterus,* a species perfectly distinct, as will be seen by the description following this, and the figure to which it refers.

I adopt Chemnitz's name for *Le Jaton* in full, because I see no objection to the introduction of compound specific names when they involve one idea; and we have already several acknowledged precedents, ex. **gr.** ancris-Mica, *capula-serpen* tis, *pellis-serpentis,* &c.

Species 122. (Mus. Saul.)

**Murex hemitripterus.** *Murex testá trigono-pyridiformi, basem versus gradatíi attenuatá, crassíssícula, transversa obtusa-costatá, tuberculo magno inter varices, spírá brevi, angulato-turríd; anfractibus superné angulato-depressa; trivárícosis, variciis solidíssícula, obtusa-costata; albidó, cornico-fuscéscénti varióá; canali brevisculo.

The hemitripterus Murex. Shell triangularly pyriform gradually attenuated towards the base, thick, transversally obtusely ribbed, with a large tubercle between the varices; spire short, angularly turreted; whors angularly depressed at the upper part, three-varicose, varices rather solid, obtusely ribbed; white, variegated with flesh-tinted brown; canal rather short.

Species 121. (Mus. Cuming.)

August 1845.

*Murex gibbosus*, young, Kiener.

*Murex Jatonii*, Sowerby (not Le Jaton, Adanson).

*Hab. — — ?*

Mr. Sowerby and M. Kiener have greatly erred in confounding this with the preceding species; they are well distinguished by Lamarck, Deshayes, and also in the accompanying figures.

Species 123. (Mus. Saul).

*Murex macropteron*. *Murex testa elongato-fusiformi, solidissima, transversa obsoletè striata, tuberulo pro-
mittente inter varices, spirá trigono-acuminata, trivari-
cosá, varicosus alatus, unius latissimà plano-expande,
quadritubato, superficie internà nudato-scabrosà; cor-
neo-fuscescente; aperture ovata, margine produc
to; canalì longo, clauso.*

The expanded-winged *Murex*. Shell elongately fusiform, rather solid, transversely obsoletely striated, with a prominent tubercle between the varices, spire triangularly acuminate; three-varicose, varices winged, last varix very widely flatly expanded, four-
lobed, inner surface undately scabrous; horny brown;
aperture ovate, edge produced all round; canal long,
closed.

Deshayes, Guerin's Mag. de Zoologie, 1841. pl. 38.

*Hab. — — ?*

This is certainly a most interesting and remarkable species; the example here figured from the collection of Miss Saul, is, I believe, the only one in this country.

For a more elaborate description I refer the reader to M. Deshayes's account of it, in his edition of Lamarck's Anima, sans vert. v. ix. p. 606–7.

Species 124. (Mus. Cuming.)

*Murex fiscellum*. *Murex testa ovato-oblonga, crassa, spirà breviscula; anfractibus superne subangulatis, octafo
riformis varicosis, varicosus rotundatis incrassatis, co
tis striis longitudinalibus clathratis; albida, viola
ceo-nigrante tintà, aperture fave vi dice violacê; canali brevi.

The little Basket *Murex*. Shell ovately oblong, thick, spire rather short; whorls somewhat angulated at the upper part; eight-varicose, varices rounded, thick-
ed, close-set, transversely ribbed, ribs latticed with longitudinal striae; whitish, stained with blackish-
violet, interior of the aperture bright violet; canal short.


*Hab. Island of Masbate, Philippines (found under stones at low water); Cuming.*

The varices are so closely developed in this species as almost to fall one upon the other.
MUREX.

Plate XXVIII.

Species 125. (Mus. Cuming.)

Murex cardus. Mur. testa ovata, utrinque acutè attenuata, spirà uncinatà; anfractibus superne angulatis, squamarius carinthus numerosis conflatis ornatis, squamis superne prominentibus erectis; alba; canalì brevì, umbilicato.

The thistle Murex. Shell ovate, sharply attenuated at both ends, spire pointed; whorls angulated at the upper part, ornamented with numerous close-set varices of scales, the uppermost of which are prominent and erect; white, canal short, umbilicated.


Hab. Pacasmayo, Coast of Peru (dredged from a coral reef twelve miles from shore at the depth of twenty-five fathoms); Cuming.

An interesting species, belonging to that section of the Murices which De Montford distinguished by the generic title of Trophon.

Species 126. (Mus. Cuming.)

Murex fasciatus. Mur. testa ovata, crassì, transversì liratà, interstìcies subtilissimè gravìs-striatìs, tuberculo magnì inter carices; trifurcata varico-s, carinae convexìs, solidìs-scata, costata; livida-fusco, obscure fasciata; columna calloso, parà superior unguatù; canalì brevì, clauso.

The banded Murex. Shell ovate, thick, transversely ridged, interstices very finely grano-sly striated, with a large tubercle between the varices; three-varicoso, varicos convex, rather solid, ribbed; livid brown, obscurely banded; columnella furnished at the upper part with a small callosity; canal short, close.


Hab. Mouth of the Gambia, west coast of Africa.

A solid Buccinum-like shell, of a dull livid brown color.

Species 127. (Mus. Cuming.)

Murex luculentus. Mur. testa ovato-fusiformi, spirà angulato-liratà; anfractibus superne angulatis, transversìs costatis, leuematì fimbriatìs frequentibus erectis longitudinaliter ornatis; intersecte, fusco tincta et fasciata; canalì brevissimo, umbilicato.

The beautiful Murex. Shell ovately fusiform, spire angularly turreted; whorls angulated at the upper part, transversely ribbed, longitudinally ornamented with frequent erect fimbriated lamellae; yellowish, stained and banded with brown; canal rather short, umbilicated.


Hab. Straits of Macassar (found among sand and gravel at the depth of eleven fathoms); Hinds.

The growth of this shell is marked by a beautiful succession of erect lamellae, thrown up, as it were, one from under the other. The name fiubriatus is occupied by Lamarck in reference to a species of which we have no knowledge.

Species 128. (Mus. Cuming.)

Murex horridus. Mur. testa oblongo-ovata, anfractibus superne coucaco-depressis, decussatìs varico-s, carinae radii simplicìs, interstìcies costatìs, areis elevato-striatìs; alba, feregineo-fusco circa varices tincta; canalì brevi.

The rough Murex. Shell oblong-ovate, whorls concavely depressed round the upper part, ten-varicoso, varicos rude, simple, interstices latticed with ribs, the areas between which are sculptured with raised striæ; white, stained about the varices with pale rusty brown; canal short.


Passus horridus, Sowerby, Conch. Illus., f. 29.

Murex Boieiini, Kiener.

Hab. St. Elena and Panama (found in sandy mud at the depth of from eight to twelve fathoms); Cuming.

I regret extremely that M. Kiener should have been doubly unfortunate in his complimentary endeavours to record the name of M. Boivin, a distinguished amateur of Paris, whose courtesy and conchological zeal I have on more than one occasion experienced,—the Murex Boieiini is the Murex horridus, and the Cyprea Boieiini is a well-known variety of the Cyprea gangrenosa.

Species 129. (Fig. a and b, Mus. Cuming.)

Murex Norrisii. Mur. testa subpyriformi-ovata, basis versus peculiariter attenuata et recurvata, transversim conspicua costata et subtilissimè elevato-striatà, spirà

August 1845.
MUREX.—PLATE XXVIII.

Norris’s Murex. Shell somewhat pyriformly ovate, peculiarly attenuated and curved back towards the base, transversely conspicuously ribbed and very finely elevated striated, spire rather short; whorls a little depressed at the upper part, six-varicose, varices frondose, fronds slender, very elegantly prickly branched; white, middle fronds brown; aperture small; canal rather long, ascending.


Hab. ?

I have much pleasure in dedicating this important species to Thomas Norris, Esq., in whose cabinet there is another equally characteristic specimen. The shell is most peculiarly attenuated and curved back towards the base, and the fronds are branched and ramified with remarkable sharpness and delicacy.

Species 130. (Mus. Becher.)

Murex centrifuga. Mur. trigono-fusiformi, gracili, ba-

sem verum attenuatâ, spirâ acuminatâ; anfractibus su-

perne subangulâi, transversim creherrimâ striatis, tu-

berculo unio, et in anfractu ultimo costis tribus qua-

teruisse, inter varices; tricaricâ, varices subalatâ, in

spinis fortibus latiusculis compressis locuiatis, spirâ

supremâ multo maximâ, elongatâ; rectâ; corneo-fusâ;

aperturâ parvâ; canalî longiusculo, extremitate pâ-

tulânum obliquo-recurre.

The centrifugal Murex. Shell triangularly fusiform, slender, attenuated towards the base, spire acuminated, whorls slightly angulated at the base, transversely very closely striated, with a single tubercle, and in the last whorl three or four ribs, between the varices; three varicose, varices subwinged, lacinated into rather wide strong compressed spines, the uppermost of which is much the largest, elongated and straight; horny brown; aperture small; canal rather long, a little obliquely recurved at the extremity.

Hinds, Mollusca Voy. H.M. S. Sulphur, p. 8. pl. 3. f. 7, 8.

Hab. West coast of Veragua (dredged from a sandy floor at the depth of fifty-two fathoms); Hinds.

A species which may be easily recognised by the three horn-like protuberances with which each whorl is sur-

mounted at the angle.
Species 131. (Mus. Cuming.)

**Murex nucula.** *Mus. testá oblongo-ovatâ, crassusculâ, septicarium varicosâ, varicibus solidis, costatis, costis prominentibus, interstitiis cancellatis; orbis; aperture ovatâ, canalii brevissimo, ascendente recurvo.

The little nut *Murex*. Shell oblong-ovate, rather thick, six-varicos, varices solid, ribbed, ribs prominent, interstices cancelled; whitish, aperture ovate, canal rather short, ascending, recurved.


_Hab._ Island of Capul, Philippines; Cuming.

_Murex cyclostoma var._, Sowerby.

Very intimately allied to the *Murex cyclostoma* but is of a more oblong form, and has a recurved ascending canal.

For Species 132 see Plate XXXIII; the shell here figured proving, upon further examination, to be a variety of the *Murex cristatus._

Species 133. (Mus. Belcher.)

**Murex gravidus.** Shell globose fusiform, solid, transversely ribbed, ribs approximated, lamellated, a little divergent upon the varices; five-varicos, varices prominent, pierced with holes posteriorly; white, banded round the upper part with brown; aperture oval; canal rather long, a little ascending, recurved to the left.


_Hab._ Cape Blanco, west coast of Africa (dug from the depth of sixty fathoms); Hinds.

This interesting species may be known by its solid globose form, its close ribbed sculpture, and the sinistrall prolongation of the canal.

Species 134. (Mus. Cuming.)

**Murex octogonus.** _Mus. testá ovato-fusiformi, spirâ acomminata; anfractibus superne concavo-depressis, octafrarium vel nonafrarium varicosis, varicibus obsoletis, actinis eleganter recurvis, dueus basalis cablê prominentibus, arvis inter varices concasis, subtiliter liratis; orbis orbis submincendo, aperture subtilietaed._

The octangular *Murex*. Shell ovately fusiform, spire acuminate, whorls concavely depressed at the upper part; eight- or nine-varicos, varices prickly, prickles elegantly recurved, two very prominent on each varix at the base, the areas between the varices concave, finely ridged; whitish or pale brown, ridges throughout dark chestnut brown; aperture faintly tinged with violet.


_Plate 36. f. 8, 9._

_Murex Peruvianus._ Sowerby.

_Hab._ Bay of Islands, New Zealand; Quoy and Gaimard.

Pacasmayo, coast of Peru; Cuming.

An extremely pretty species, encircled throughout with fine dark brown ridges, which curl up upon the varices in the form of prickly spines.

Species 135. (Fig. 135. Mus. Saul; and Fig. 136. Mus. Cuming.)

**Murex balteatus.** _Mus. testá ovata, subventricosa, anfractibus superne quinquam, infra angulatus costatis, costis angustiis, subdistantibus, per suumitatem obsoletâ sulcatis; septifarium varicosâ, varicibus fourdosis, fourdibus eunice ramosis, actiâ squamis atunatis peculiariter cancellatis; orbis, roseo pulcherrimè liratis, fourdibus superne angustiis vel nigrantis-brevirratis; aperture parâ, produceâ; canali brevi, planato, recurvo._

The belted *Murex*. Shell ovate, rather ventricose, whors slightly angulated at the upper part, ribbed below the angle, ribs strong, rather distant, obsoletely grooved along the top; seven-varicos, varices frondose, fronds delicately branched, peculiarly frizzled on the anterior side with minute scales; white, beautifully tinged with pink, fronds orange or blackish brown at the upper part; aperture small, produced; canal short, flattened, recurved.


_Hab._ Island of Masbate, Philippines (found on the coral reefs); Cuming.

The name of "balteatus" was suggested for this beautiful species, Mr. Sowerby informs us, by Dr. Beck, but for what reason I am at a loss to imagine.

August 1845.
The curious frizzled sculpture on the anterior side of the varices is peculiarly worthy of remark.

For Species 136 see Plate XXXIII.

Species 137. (Mus. Cuming.)

**Murex pudicus.** *Mur. testă oblongo-ovatá, solidiuscula medio ventricosa, striate attenuata, transversa costa, costis varices super minussinuus squamatos, lirá parae introversae; septifarian varicosas, varieux solidis, leviter tuberculatis; intrus exangue nivea; canali brevi.*

**The chaste Murex.** Shell oblong ovate, ventricose in the middle, attenuated at both ends, transversely ribbed, ribs very minutely sealed upon the varices, with a small ridge intervening; seven-varicoe, varices solid, slightly tuberculated; snowy white within and without; canal short.

**Reeve, Pro. Zool. Soc., 1843.**

*Hab. Island of St. Domingo.*

A solid white shell, very much attenuated from the middle.

Species 138. (Mus. Belcher.)

**Murex cirrosus.** *Mur. testă ovatá, ventricosa, spirae suturis profundis; nonsectarius varicosas, varieux laciniis semis fistulosis recrescis ornatís, areis inter varices costatis, costis laciniis intercurrentibus; pallide carneá, variecan laciniis albis; aperturá ovatá; canali brevissimo, gracili, recurvá, dorso bifarius laciniato.*

**The cirrus Murex.** Shell ovate, ventricose, sutures of the spire deep; nine-varicoe, varices ornamented with six recurved fistulous laciniæ, areas between the varices ribbed, ribs running from the lacina of one varix to that of the other; pale flesh-colour, laciniæ of the varices white; aperture oval; canal rather short, slender, recurved, with two rows of laciniæ at the back.

**Hinds, Mollusca Voy. H. M. S. Sulphur, p. 9. pl. 3. f. 17, 18.**

*Hab. Straits of Macassar (found among sand and fine gravel at the depth of fifteen fathoms); Hinds.*

Distinguished by the very beautiful curl-like laciniated structure of the varices.

Species 139. (Mus. Belcher.)

**Murex peritus.** *Mur. testá subtrigono-ovatá, afflatus superni angulatis, transversa striatis; sectarius varicosas, varieux tubuláris, laciniatis, laciniis acuminatis, variecanum parte antica inter laciniis crevata; alba, ferrugineo-fuscicente tincta et fasciata; canali subelongato, plano, recurvá.*

**The expert Murex.** Shell somewhat triangularly ovate, whorls angled at the upper part, transversely striated; six-varicoe, varices thin, laciniæ acuminated, hooked, the uppermost especially; anterior part of the varices crevated between the laciniæ: whitish, stained and banded with faint rusty brown; canal a little elongated, flattened, recurved.

**Hinds, Mollusca, Voy. H. M. S. Sulphur, p. 9. pl. 3. f. 23, 24.**

*Hab. Bay of Magdalena, California (dredged from a sandy floor at the depth of seven fathoms); Hinds.*

This species may be known by the curious hooked termination of the laciniæ.

Species 140. (Mus. Cuming.)

**Murex vittatus.** *Mur. testá subfusiformi-ovatá, transversa salcata, septifarian varicosas, varieux latissimis, solidis, approximatis, brevispinosis; albá, nigro tessellato-vitata; canali brevissimo.*

**The filleted Murex.** Shell somewhat fusiformly ovate, transversely grooved, seven-varicoe, varices rather broad, solid, approximated, armed with short spines; white, tessellately filleted with black; canal rather short.

**Broderip, Pro. Zool. Soc., 1832.**

*Hab. Isle of Muerte, Bay of Guayaquil (from sandy mud at the depth of eleven fathoms); Cuming.*

Easily to be recognised by the marked contrast of its painting.
MUREX.

Species 141. (Mus. Cuming.)

Murex caliginosus. *Mor. testá ovát, spirá angulato-turritá, basea versus contractá, anfractúibus superne depresso-angulatis, transversó costatis, costís latis, planina-serialibus; sexfárias varicosá, varicíbus tensibus, pliáculo-laminátis; sordidís fasciá, costís su- turalibus; canali brevísulo.

The obscure Murex. Shell ovate, spire angularly tur- reted, contracted towards the base; whorls depressly angulated round the upper part, transversely ribbed, ribs broad, rather flat, somewhat distant; six-varicose, varices thin, plicately laminated; dull brown, ribs of a darker colour; canal rather short.


Hab. — ?

The varices of this shell resemble those of the *Murex fasciatus*, though not lapped over at the edge as in that species; the ribs are very different, and more in the style of those of the *Murex lutescens*.

Species 142. (Mus. Cuming.)

Murex lappa. *Mor. testá ovát, utriusque attenuát, sex- fárias varicosá, varicíbus latis, incrassátis, solidís, approximativís, frontibus numerosis spinosis erectis ar- mátis, varicíbus utriusque fortitúd costátis, costís sublatissími, minuittissimá scrobíris; alba, rufa-fusa vestitu bífasciatís maculát; aperturá párca, productá, íntus eleva-tistrát.

The bur Murex. Shell ovate, attenuated at both ends, six-varicose, varices broad, thickened, solid, approximated, armed with numerous erect spiny fronds, varices strongly ribbed on both sides, ribs grooved, minutely scabrous; white, stained with two bands of pale reddish brown spots; aperture small, produced, elevately striated within.


Hab. St. Elena, West Columbia (found on a rocky bed at the depth of twelve fathoms); Cuming.

A stout shell with solid, sharp, prickly varices.

Species 143. (Mus. Cuming.)

Murex lugubris. *Mor. testá ovát, spirá brevísulo, transversó liratá et striatá; sexfárias superne depresso- angulatí, sexfárias varicosá, varicíbus laciníatis, laciníis brevísibus, recurvís; atro-purpureá, varicíbus ferra-gineo-fusca; aperturá subamplá; canali brevísulo.

The mournful Murex. Shell ovate, spire rather short, transversely ridged and striated; whorls depressed at the upper part, six-varicose, varices laciniated, la- cine short, recurved; blackish purple, varices rusty brown; aperture rather large; canal short.


Hab. Puerto Portrero, Central America (found in the coral rocks); Cuming.

The lacuniae in all but the last one or two varices are for the most part worn and blunted.

Species 144. (Mus. Cuming.)

Murex Californicus. *Mor. testá trigono-oblongá, sub- fusíformi, spirá angulato-turritá; anfractúibus superne angulato-depressís, tuberculo prominúlo inter varíces, transversó costátis, costís distantíbus, interstíciis lisulis minuittis pulcherrímis squamátíssimus escultíps; trijúrias varícas, varicíbus laciníatis, laciníis subrecurvís; ferrá-gineo-fusca; aperturá ovátá; canali brevi, cláuso, recurvá.

The Californian Murex. Shell triangularly oblong, slightly fusiform, spire angularly turreted; whorls angularly depressed at the upper part, with a rather prominent tuberacle between the varices, transversely ribbed, ribs distant, engraved with minute very beau-tifully scaled ridges; three-varicose, varices laciniated, lacuniae a little recurved; rusty brown; aperture ovate, canal short, closed, recurved.

Hinds, Mollusca Voy., H. M. S. Sulphur, p. 8, pl. 3. f. 9, 10. (Mus. California.)

An interesting species with respect to form and sculptur-e, but of dull colour; the interstices between the cross ribs are scaled with extreme delicacy and beauty.

Species 145. (Mus. Cuming.)

Murex borealis. *Mor. testá subelongato-fusíformi, gra- cili, subpellucido; transversá obsoléte liratá; septi-fárias varicosá, varicíbus simplicíbus, lamelliferís; íntus
extusque niveâ, roseâ pallidissimâ tinctâ; aperturâ subamplâ.

The northern Murex. Shell somewhat elongately fusiform, slender, slightly transparent, transversely obsoletely ridged; seven-varicose, varices simple, laminiferous; snowy white within and without, very palely tinged with pink; aperture rather large.


Hab. Iceland.

An elegant semitransparent laminiferous shell partaking very much of the generic character of Fusus.

Species 146. (Mus. Cuming.)

Murex crassilabrum. Mur. testâ ovatâ, spirâ brevi, acutâ, transversim fortiter costâtâ, costis perpâciss,

grandibus; multisariam varicosâ, varicibus simplicibus, laminiferis; intus extusque niveâ; labro peculiariter incrassato.

The thick-lip Murex. Shell ovate, spire short, acute, transversely strongly ribbed, ribs very few in number, large; many-varicose, varices simple, laminiferous, snowy white within and without; lip peculiarly thickened.

Gray, MSS. British Museum.

Purpura crassilabrera, Sowerby.

Hab. Valparaiso (found in crevices of rocks at low water); Cuming.

Mr. Sowerby has questioned the propriety of placing this shell in the genus Murex, but I am inclined to think Mr. Gray is correct in so doing.
MUREX.

PLATE XXXI.

Species 147. (Mus. Belcher.)

MUREX HIRICATUS.  *M. testa ovato-fusiformi, anfractibus superne depressis, squamis compressarum horizontaliter arrisibus duabus spiriliter artialis; albicata; apertura subangulata; canali brevi.

The prickly Murex. Shell ovately fusiform, whorls depressed at the upper part, spirally adorned with two rows of compressed horizontal scales; whitish, aperture rather large: canal short.


Hab. Panama (found in mud at the depth of about nineteen fathoms); Hinds.

Only one example of this singular species was found.

Species 148. (Mus. Belcher.)

MUREX RADIATUS.  *M. testa ovata, quemqueforaria varicosa, varicosis brevisitis, antice abruptis, lucinis compressis, subquadragonis, medio lineo duplicatis, postice interstitiornum medio vestigibus; apertura parva, producta; canali rãe chino, ad basin leciter recurreo.

The roasted Murex. Shell ovate, five-varicose, varices laciniate, anteriorly abrupt, laciniae compressed, subquadrato, divided in the middle by a line, extending back on the posterior side to the middle of the interstices; aperture small, produced; canal almost closed, slightly recurved at the base.

Hinds, Mollusca Voy. Sulphur, p. 9. pl. 3. f. 21, 22.

Hab. San Blas, west coast of Mexico (found in mud at the depth of eleven fathoms).

Mr. Hinds describes the laciniae of this species as taking root in a peculiar manner near the centre of the interstices.

Species 149. (Mus. Cuming.)

MUREX PLANILATUS.  *M. testa oblongo-ovata, transversum undique plichernae lirata, livis angustis numerosis confecti, ad summitatem peculiariter planus; anfractibus varicosis, varicosis placentis; inter-fuscescens; apertura ampla.

The flat-sided Murex. Shell oblong-ovate, transversely very beautifully ridged throughout, ridges narrow, numerous, close-set, peculiarly flattened along the summit; six-varicose, varices plicated; yellowish brown; aperture large.


Hab. Swan River.

The entire surface of this beautiful little species is covered with very prominent close-set narrow ridges, which are peculiarly flattened along the summit.

Species 150. (Mus. Cuming.)

MUREX NODULIFERUS.  *M. testa cylindraceo-ovata, crassata, transversum elevato-striato, spirae acuminatae; anfractibus varicosis, varicosis noduloso-umbratis, anfractibus ultimis varicosis squamis longissimis erectis; altis, squamis rubidofuscis aut nigricantibus; canali brevissimo.

The noduliferous Murex. Shell cylindrically ovate, thick, transversely elevated striated, spine acuminate; six-varicose, varices nodulously squamated, varices of the last whorl with the scales very long and erect: white, scales reddish-brown or blackish; canal very short.


Hab. Island of Masbate, Philippines (found on coral reefs); Cuming.

A remarkable species reminding one very forcibly of the Pleurotomaria nuculiformis.

Species 151. (Mus. Belcher.)

MUREX FOYOLATUS.  *M. testa fusiformi, crassa, transversa transversum elevatum sulcatum, anfractibus superne subangulatis, laciniais minimis longitudinalibus furvatis; septifunnel varicosa, varicosis simplicibus, postice rotundat, antice acutis; robus-fuscis, atr-optus pariet pulpit biostata; labro externo integre obtuso dentato, colimellar produtto, canali brevissimo, subrevero.

The furrowed Murex. Shell fusiform, thick, transversely very closely grooved, whorls slightly angulated at the upper part, furrowed with very small longitudinal laminae; seven-varicose, varices simple, posteriorly rounded, anteriorly sharp:uddy brown, with two blackish purple bands; outer lip obtusely denticated within, colmellar lip produced; canal rather short, a little recurved.

Hinds, Mollusca Voy. Sulphur, p. 9. pl. 3. f. 15, 16.

Hab. Bay of Magdalen, California (dredged from a sandy floor at the depth of seven fathoms); Hinds.

A shell of somewhat uncoast growth, though presenting good distinguishing characters.

Species 152. (Mus. Cuming.)

MUREX INERMIS.  *M. testa eleganter fusiformi, semi-
pellucidā, transversivm obsolētō liratā; anfractībus rotundatis, securiōnum varicosīs, varīcībus parvis, anomali- fundībus; umerē; aperturā rotundatā, labro columnellarü productō; canali subelongato, recurvō.

The unarmèd Murex. Shell elegantly fusiform, semi-transparent, transversely obsolescently ridged; whors rounded, six-varicose, varices small, ring-like, snow-white; aperture rounded, columellar lip produced; canal slightly elongated, recurved.


_Hab._ Japan; Dr. Siebold.

A delicately formed species in which the varices bear some resemblance to the rings of the _Scaloria pretiosa._

Species 153. (Mus. Cuming.)

_Murex decussatus._ _Mar._ testā ovatā, basēn versus con- tractā, spirā brevēi, angulata-turrīlā; anfractībus sup- perēi angulatiūs, securiōnum varicosīs, varīcībus angūsīs, solidīs, nodosis, subdistantibus, areis internecīs in an- fractus ultimō costis diābus distinctībus decussatīs; vi- lascente-ālbidō, varieciō namā atro-purpuream, aperturam fauce violascentem; labrum inter nodosum.

The cross-barred Murex. Shell ovate, contracted towards the base, spire short, angularly turreted; whors angulated at the upper part, six-varicose, varices narrow, solid, nodose, rather distant, intermediate areas on the last whorl cross-barred with two distant ribs; violet-tinged white, nodules of the varices jet-purple; interior of the aperture violet; lip nodulated within.

_Murex fuscellum_ var., Sowerby.

_Hab._ Island of Bohol, Philippines.

The cross-barred sculpture of this shell, dividing its surface into regular square compartments, distinguishes it from the _Murex fuscellum_ to rank as a separate species. Several examples were collected by Mr. Cuming at the above Island without any particular variation in character.

Species 154 (Mus. Cuming.)

_Murex cyclostoma._ _Mar._ testā ovatā, gibbosā, spirā brevīsculā; sex-varicosā, varicībus prominēuntibus, antēi foraminata et cancellatīs, varicīnus interstitīs trans- versīm costatīs, costās pōne varīces fortioribus, divergentibus; līvīd-fiaceous, costā albicantībus; aperturā parēd, rotundā, margine productō.

The round-mouth Murex. Shell ovate, gibbous, spire rather short; six-varicose, varices prominent, anteriorly cancelled and pierced with holes, interstices between the varices transversely ribbed, ribs divergent and stronger behind the varices; livid-brown, ribs whitish; aperture small, round, edge produced.


_Hab._ Island of Bohol, Philippines.

The variety mentioned by Mr. Sowerby is a distinct species to which I have given the name of _Murex uncinaria._

Species 155. (Mus. Cuming.)

_Murex incisus._ _Mar._ testā globosa-ovatā, cressā, spirā brevēi, subobtusā; septiōnum varicosās, varicībus rotun- datīs, incruscatīs, approximātīs, transversē varicatū- costatīs et striatīs, costis striisque pulcherrimāre squamato- crenulatās; altā, costis costatae; aperturā parēd.

The carved Murex. Shell globosely ovate, thick, spire short, rather obtuse; seven-varicose, varices rounded, thickened, approximated, transversely carinally ribbed and striated, ribs and striae very beautifully squamately crenulated; white, ribs chesnut-brown; aperture small.


_Hab._ St. Elena, West Columbia (dredged from a rocky bottom at the depth of eight fathoms); Cuming.

A species well distinguished by the narrow crenulated keel-like ribs which cross the varices at regular and frequent intervals throughout.

Species 156. (Mus. Cuming.)

_Murex uncinarius._ _Mar._ testā trigono-ovatā, subfusi- formi, spirā subacutā, levegatā, tuberculo fere ob- soleto inter varices; triiōnum varicosās, varicībus squa- narā plano-compressa incisata superēi arvata, infra plano-fimbriātā; alveo-albicantā; aperturā parēd; costā brevēi, clausā.

The hooked Murex. Shell triangularly ovate, somewhat fusiform, spire rather acuminate, smooth, with a nearly obsolete tubercle between the varices; three-varicose, varices armed at the upper part with a flatly compressed hooked scale, below flatly fimbriated; fulvous white; aperture small; canal short, closed.


_Murica Copensis_ and _Mitriformis_, Sowerby.

_Hab._ Cape of Good Hope.

Lamarck referred in doubt to Martini's figure of the _Murex clausus_ thinking, probably, that this was the young of that species; and hence arose the confusion of Martini's shell (Murex clausus) being taken for Lamarck's _Murex uncinarius._

I ought, perhaps, to notice an error into which M. Deshayes has fallen in stating that this shell is a species of _Typhis_. The distinguishing character of that genus is the presence of an erect fistulous tube between the varices in place of a tubercle; of which there is no indication in the _Murex uncinarius._
MUREX.

PLATE XXXII.

(Specimens slightly magnified.)

Species 157. (Fig. 157 and 163, Mus. Cuming.)

Murex alveatus. *Murex testá pyramidali-oblungá, transversim costátá, costis angustis, peculiariter elevátis, utrinque minuássiné nodulósis, varíciús reticulátiús, interstítiiis alvétis; quadrifíriám vel octotariám varícosá, varíciús pulcherrímá cæcellátis, pone cæverosá; albidá; aperturá paréá; canali brevi.

The hollowed Murex. Shell pyramidaly oblong, transversely ribbed, ribs narrow, peculiarly elevated, very minutely nodulated along each side, reticulated with the varices, interstices hollowed; four- to eight-varicosé, varices very beautifully cancelled, cavernously behind; whitish; aperture small, canal short.

Kiener, Iconographie coq. viv., p. 24. pl. 46. f. 2.

Hab. Panama (found under stones at low water); Cuming.

A pretty deeply reticulated species, partaking somewhat of the characters of Triton.

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Species 158. (Mus. Gruner, Bremen.)

Murex Purpureodes. *Murex testá ovátá, subcentrícá, spirá breá; aufractábivs superfíi subangulátis, costis párés angustís longitudinalibus et transversis infra angulánum reticulátis, costis transversis confertióriús; albíánte, fasciá faescenté interdum cægulátá; aperturá amplá; patíáé.

The Purpura-like Murex. Shell ovate, rather ventricose, spire short; whorls slightly angulated at the upper part, reticulated below the angle with small narrow transverse and longitudinal ribs of which the transverse are the closer together; whitish, sometimes encircled with a pale brown band; aperture large, wide open.

Dunker, Mss. (Cassel).

Hab. Cape of Good Hope.

A small open-mouth shell, with no regular indication of varices.

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Species 159. (Mus. Cuming.)

Murex Radius. *Murex testá obvo-fusiformi, solidissimá, transversim elevato- striátá, stríis conspicuís, regulariús; septifícírìa varícosá, varíciús incrassátis, sub- rotundás; rubido-caesáceá; canali paululum recureo.

The brown Murex. Shell ovately fusiform, rather solid, transversely elevately striated, striae conspicuous, regular; seven-varicose, varices thickened, somewhat round; reddish chestnut; canal a little recurved.


Hab. —?

A solid dark brown shell, certainly distinct from any species that I have seen.

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Species 160. (Mus. Cuming.)

Murex Erostus. *Murex testá pyramidali-oblungá, transversim lirátá, lirís angustís, confectís, planisculís, utrinque creámis, interstítiiis profundáis; bási cæverosá-sulcatá, sube septis duoab duobus decrassátis; irregularité variqueós; aufracta último varícibus duobus fortibus, ceterís obsoleté varicosá; cariolo-nigíricaute, varícibus albícamó; aperturá minútá; canali brevi.

The eroded Murex. Shell pyramidaly oblong, transversely ridged, ridges narrow, close-set, rather flattened, created on both sides, interstices deep; cavernously grooved at the base, groove crossed by two septa; irregularly varicose, two strong varices upon the last whorl, the rest obsoletely varicose; bluish black, varices white; aperture very small, canal short.


Hab. Panama (found under stones); Cuming.

This is rather a questionable species of Murex, partaking so much as it does of the characters of Triton. It differs in its sculpture throughout from the Murex alveatus, but especially in being encircled with a deep broad cavernous groove at the base.

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Species 161. (Mus. Cuming.)

Murex Distinctus. *Murex testá fusiformi-turriculátá, transversim striátá ant exiliter lirátá, spira satinis subprofundáis; aufractibus rotundátis, septifícírìa varícosá, varíciús incrassátis, nodulósis; albidá ant flaví rescóente; aperturá paréá, rotundá; canali brevi, sub-ascendente.

The divided Murex. Shell fusiformly turriculated, transversely striated or faintly ridged, sutures of the spire rather deep; whorls rounded, six-varicose, va-

August 1845.
rices thickened, noduliferous; white or yellowish; aperture small, round; canal short, slightly ascending.  
*De Cristoforis and Jan*, Cat. rerum nat., pl. 11. f. 82.  
*Murex scalarinus*, Bivon.  
*Murex Scalaroides*, De Blainville.  
*Hab*. Mediterranean. Palermo; Philippi.

Very closely approximating to the *Murex inermis* brought from Japan by Dr. Siebold, and which might be regarded as the eastern analogue of it.

**Species 162. (Mus. Cuming.)**

*Murex beticus*. *Mur. testa fusiformi-ovata, longitudinaler tuberculato-costata; transversa elevato-striata; trivariocosa, varicibus eminuentibus, varicibus-nodosis; beticher, indistincte fasciatum, aperture fauce subpurpurascens; labro intus dentato; canali brevi.*

The swarthy Murex. Shell fusiformly ovate, longitudinally tuberculously ribbed, transversely elevate striped; three-varicose, varices eminent, prickly nodose; dark brown, indistinctly banded, interior of the aperture tinged with purple; lip toothed within; canal short.  
*Hab.*  

The nodules of this interesting little dark brown shell are peculiarly prickly.

**Species 164. (Mus. Cuming.)**

*Murex inconspicuus*. *Mur. testa oblongo-ovata, crassae, transversa creberrime obtusa-lirata, longitudinale costata, costis rudibus, incressatis, varicibus indistinctis; variecostata; labro intus dentato; canali brevi.*

The inconspicuous Murex. Shell oblong-ovate, thick, transversely very closely obtusely ridged, longitudinally ribbed, ribs rude, thickened, varices indistinct; dirty brown; lip toothed within; canal very short.  
*Murex corallinus*, Seacchi.  
*Fusus corallinus*, Philippi.  
*Hab*. English Channel, Jersey; Sowerby.  

A small rude thickened species, some examples of which are much more elongated than others.

For Species 163 see Plate XXXIII; Fig. 165 proving to be the young of *Murex balteatus.*

**Species 166. (Mus. Cuming.)**

*Murex exigus*. *Mur. testa ovata, crassiuscula, transversa obtusa-lirata, quinquefaria varicosae, varicibus eminuentibus, angulaciniatis, laciniae intersticios canellatis; albâ; aperturâ parvâ, productâ; canali brevi, recurvo.*

The little Murex. Shell ovate, rather thick, transversely obtusely ridged, five-varicose, varices eminent, narrow-laciniated, laciniae and interstices between them canellated; white, aperture small, produced; canal short, recurved.  
*Hab*. Saint Nicolas, Island of Zebu, Philippines; Cuming.  

The laciniae of the varices of this species are peculiar in that they assume a narrow, almost fistulose, structure.
Species 132. (Muss. Saul.)

Murex cancellatus. *Murr. testá trigono-ovatá, spirá breviscula, australibus transversis liratis, lirarum interstitialium peculiariter cancellatis; tricarico, varicibus compresso-fimbriatis, fumo clausi subjunctus superna ornatis; clavata, aperturá parvá; canali clauso, buí aperto, uncianto-recurreo.

The cancelled Murex. Shell triangularly ovate, spire rather short, whorls transversely ridged, interstices between the ridges peculiarly cancelled; three-varicose, varices compressly fimbriated, ornamented at the top with a closed, fistulous-like frond; ivory-white; aperture small; canal closed, open at the base, curved back in a hooked manner.


*Murr. testá ovatá, subpyramidalis, australibus brevibus, tuberculato-caricosis, varicibus interstitialibus subjunctis liratis, lirarum interstitialium quoque pulcherrimis fimbriato-cancellatis; albida, maculata rubido-fuscá inter varices conspicuá tinctá, cunulmata et apertura faucé pallide rosacea; canali brevisculo, recurvo.

The spotted Murex. Shell ovate, somewhat pyramidal, whorls short, tubercularly varicose, varices and interstices finely ridged, ridges and their interstices also very beautifully cancellated; whitish, conspicuously stained between the varices with a reddish brown spot, columnella and interior of the aperture tinged with pink; canal rather short, recurved.


*Murr. testá ovatá, subpyramidalis, australibus brevibus, tuberculato-carico, varicibus interstitialibus subjunctis liratis, lirarum interstitialium quoque pulcherrimis fimbriato-cancellatis; albida, maculata rubido-fuscá inter varices conspicuá tinctá, cunulmata et apertura faucé pallide rosacea; canali brevisculo, recurvo.

The rusticated Murex. Shell ovate, spire acuminately tur- reted, whorls swollen in the middle, transversely rather obscurely ridged, tubercularly varicose, varices frondose, fronds short, interstices minutely scaled; yellowish-white, varices dark brown; aperture small, lip produced; canal rather short.


Species 163. (Fig. Kiener.)

Murex polygonus. *Murr. testá ovatá, subpyramidalis, ventricosis, transversè subulata et striato, nonvariari varicosis, altá; australibus superfici ascendit, supera planulatis, ad angularia tuberculato-circumscripta.*

The many-angled Murex. Shell ovate, somewhat fusiform, ventricose, transversely grooved and striated, nine-varicose, white; whorls angulated at the upper part, flat above, tubercularly coronated at the angle; spire prominent.


Kiener, *Icon. Cor. viv.* p. 75. pl. 41. f. 2.

Species 167. (Fig. a and b, Muss. Cuming.)

Murex rusticus. *Murr. testá trigono-ovatá, liris convexis subulatis irregularibus confertis adique einculati, tuberculo nudo inter varices; trifurca varios, varicibus peculiariter lamiato-frondosis, frondibus crecis, lateribus connexis; lenticulae, livido-alioseco hie illice satuvatiore tinctae.

The terrified Murex. Shell triangularly ovate, encircled throughout with close-set, slightly nodose, irregular convex ridges, with a single tubercle between the varices; three-varicose, varices peculiarly lamellately frondose, fronds erect, connected and entangled together; yellowish, stained with livid orange, in patches here and there of a deeper colour.
A decidedly new species, reminding one at first sight of the
Murex Sinensis, but quite distinct on examination. The
two shell is encircled with very close-set convex ridges,
each terminating on the varices in an erect frounted, connected
together at the side so as to form a continuous laminated
frill extending from the suture to the base.

Species 168. (Mus. Norris.)
Murex crocutus. "Mur. testa trigono-fusiformis, trans-
versionis turrita, liris parceis, granoso-squamata, tubu-
culo inter varices; triracrosat, varicos frondosis,
frondibus obtuso-rumosis; canali sublongato, frondoso;
fuscocentro, frondibus rubido-crocatis.

The saffron-tinged Murex. Shell triangularly fusiform,
transversely ridged, ridges small, granosely separ-
ate, with a tubercle between the varices; three-x-
varices, varices frondose, fronds obtusely branched;
canal rather elongated, frondose; brownish, fronds
reddish saffron colour.

Hab. ——-?

This might be regarded as a species of somewhat doubt-
ful character, but after careful comparison I am unable
to refer it to any hitherto described. The varices of fronds
in the specimen before me, from the collection of Thomas
Norris, Esq., which, with its operculum, is in excellent
condition, are of a bright scarlet saffron colour.

Species 169. (Fig. Kiener.)
Murex cariniferus. "Mur. testa ovato-conica, turbinata;
longitudinaliter costata, transversim striata; fultes-
cente; spirae acutae, spirae coronatæ; afraetibus con-
vercis, carinatis; striae sublumellosis, decurrentibus rub-
gosis; aperturæ albâ; labro dextro sulcato, denticolato;
canali brevi; columna basi mobilicata.

The keeled Murex. Shell ovately conical, turbinated,
longitudinal ribbed, transversely striated; yellowish,
spire sharp; with sublumellar, decurrent, wrinkled
striae; aperture white, right lip grooved, denticulated;
canal short; columnella umbilicated at the base.

Kiener, Icon. Coq. viv. p. 100, pl. 18. f. 2.
Fusus cariniferus, Sowerby, Conch. Illus., f. 58.
Hab. ——-?

This shell is unknown to me, but, rather than omit the
species, I have copied Kiener's figure and description.

Species 170. (Mus. Cuming.)
Murex buxius. "Mur. testa fusiformi-ovalis, afraetibus superi-
ci sublumellatis, multifariis unduloso-varicosis,
varicosis obtusis liratis, liris crebris variis minuto ru-
gosis; aperturâ patellâ, canali brevi; intersecante-fusco,
columnis latissimis, varicosibus numerosis sinuulatis, columnellâ
et apertura fonce niveâ, prope marginem denticolata.

The box-wood Murex. Shell fusiformly ovate, whorls
a little angulated round the upper part, multiluminos
varicos, varices waved, obtuse, transversely ridged,
ridges very close-set, minutely wrinkled; aperture
wide open, canal short; yellowish-brown, encircled
with numerous small yellowish white zones; columnella
and interior of the aperture snowy white, denticulated
near the margin.

"Proto buxus, Sowerby.
Hab. Iquiqui, Peru (found on a sandy bottom at the depth
of eighteen fathoms); Cuming.

A most aberrant form of the genus.

Species 171. (Mus. Gruner, Bremen.)
Murex pudicolor. "Mur. abrureaviors-fusiformis, obliquè
trigono, transversim striata, liris singulis tuberatis dua-
bus basen versus exauili inter varices, liris multum ele-
cvat inter liras; varicosis, varicosibus rotundatis, pro-
iminentibus, squamos frondosoque protostromi basen
versus principal; pseudocenosis ovalis; exuini rubente.

The blush-coloured Murex. Shell abbreviately fusiform,
obliquely triangular, transversely ridged, each
ridge with two tubercles, fading towards the base of the
shell, between the varices, and a minute elevated
line between the ridges; three-varicos, varices rounded,
prominent, beautifully ornamented with scales and,
especially towards the base, with small sprouting
fronds; bright delicate blush-red.

Hab. Island of St. Thomas, West Indies; Gruner.

To Mr. Gruner, of Bremen in Germany, my thanks are
most justly due for the loan of this new and extremely in-
teresting shell. It reached me just at the moment in which
I was arranging my last two plates of Murices for the ar-
ist; and I take no little pleasure in recording, as a noble
example of disinterestedness in the pursuit of science, the
circumstance of his having forwarded it through the post,
suspended at imminent risk from a letter, in order to be
in time for insertion: an offering the more acceptable,
because coming from a gentleman to whom I had not the
honour of being personally known.
MUREX.

PLATE XXXIV.

Species 172. (Fig. Kiener.)

Murex Kieneri. Mur. testa parce, elongata, turriculant, varicosa, transversum striatum, fulvo ant floccosum; spirà acuta; anfractibus convexis; suturà profundá, flavo maculatá; labro dextro intus sulcato; canali subelongato, supra rotundato, angusto.

Kiener's Murex. Shell small, elongated, turriculated, varicose, transversely striated, fuscous or yellowish; spire sharp; whorls convex; suture deep, spotted with yellow; right lip grooved within; canal rather elongated, rounded above, narrow.

Murex exiguus, Kiener (not of Broderip), Icon. Coq. viv., p. 97. pl. 46. f. 3.

Hab. —?

An interesting looking species with which I am unacquainted. The name exiguus being already occupied I have the pleasure of attaching M. Kiener's name to it.

Species 173. (Mus. Cuming.)

Murex Pleurotomoides. Mur. testa pyriforme-ovata, anfractibus superne depressis, transversum liratis et minutissimis crispato-squamatis, multifarium varicosis, varicibus maculato-squamatis; canali subelongato, patulo; colunmella labroque intus dentatis, labro superne sinuato; albi ant floccante.

The Pleurotoma-like Murex. Shell pyriformly ovate, whors a little depressed at the upper part, transversely ridged and very minutely crisply sealed, multifariously varicose, varices prickly sealed; canal rather elongated, wide open; lip and columnella toothed within, lip sinuated at the upper part.


Hab. —?

A small pyriform prickly shell having a sinus in the upper part of the lip after the manner of a Pleurotoma.

Species 174. (Mus. Cuming.)


The Pistachio-nut Murex. Shell ovate, somewhat fusiform, rather solid; whors rounded, encircled with a rather obsolete groove near the suture, transversely closely ridged, longitudinally a little obliquely varicose, varices waved obtuse; light chestnut-brown, columnella and interior of the aperture faintly tinged with pink; canal short.


Hab. —?

A true and well-defined species which has not been hitherto noticed.

Species 175. (Mus. Cuming.)

Murex vibex. Mur. testa ovato-fusiformi, turrità, transversum liratis, lirarium interstitiali concavo-sulcatis; septification varicosà, varicibus rotundatis, prominentibus, subnodosis; colunmellae subindistincte plicata; canali brevissimo, labro crenulato, intus radiatim sulcato; alba, ferrugineo-fusco lutea, epidemide fuscâ, rugosa.

The stripe-marked Murex. Shell ovately fusiform, turrità, transversely ridged, interstices between the ridges, concavely grooved; seven-varicose, varices rounded, prominent, subnodose, columnella somewhat indistinctly plaited; canal very short; lip crenulated, radiately grooved within; white, stained with rusty brown, epidermis brown, rough.


Hab. St. Elena and Panama (found in sandy mud at a depth of from six to twelve fathoms); Cuming.

An aberrant species which might be referred with equal propriety to Turbinellus.

Species 176. (Fig. a and b, Mus. Crotch.)

Murex eurypteron. Mur. testa ovato-oblungà, basem versus contractà, spirà breviscintulà, acuminato-inerritâ, suturis subexcatulis; anfractibus superne depressis, transversum obscurè oblongo-liratis et punctato-striatis, tuberculo superficiario inter varicès; tricaricosis, varicibus truncatis, erecto-oclusis, ultimo latissimo expanso, superne fulcato-recrurvo; apertura parce ovata; canali brevissimo.

The wide-wing Murex. Shell ovately oblong, contracted towards the base, spine rather short, acuminately tur-

October 1845.
reted, sutures slightly excavated; whorls depressed at the upper part, encircled with obscure transverse obtuse ridges and punctured strie, with a superficial tubercle between the varices; three-varicose, varices thin, obtuse winged, the last very widely expanded and falcately recurved at the upper part; aperture small; canal rather short.

Hab. Japan?

For this new and extraordinary shell I am indebted to the kindness of the Rev. W. R. Crotch, whose manuscript name encyclopaedia, (from cypus, widely extended, and τριγώνος, wing), I feel great pleasure in adopting as being peculiarly expressive of its remarkable slate growth. It approaches nearest to the Murex falcatus, but in that species there are five varices on a whorl, whilst in this there are but three, and the winged expansions of the Murex falcatus are folded over at the superior margin. The specimen here figured, and which is I believe unique, was received from Holland, and is supposed to have come from Japan.

Species 177. (Fig. Kiener.)

Murex Zelandicus. Mor. testa globosa, anterius ventricosa, subfragili; albidâ; longitubumque quinques spinosâ, transversum leviter sulcatâ, spinis ultimis anfractus longioribus, recurvatis; spirâ longâ, acutâ; aperture ovâli et albâ; canal breviter costulato, squamoso.

The New Zealand Murex. Shell globose, ventricose anteriorly, somewhat fragile; whitish, armed longitudinally with five varices of spines, transversely slightly grooved, the last spines of the whorl longer, recurved; spine long, sharp; aperture oval, white; canal short, twisted, squamoso.

Hab. Cook’s Straits, New Zealand.

As I have not had the pleasure of seeing this interesting species I am unable to give an original figure or description. There is, I believe, a small specimen of it in this country figured some years since by Mr. Sowerby, in his ‘Conchological Illustrations,’ but he cannot recollect in whose possession it is.

Species 178. (Mus. Cuming.)

Murex margaritigula. Mor. testa ovâli, squamatal varicibus angustis quadrate circitâ, anfractus superne leviter angularis, multifarium varicosis, varicibus obtuso-rotundatis ad angulum compresso-nodosis; albâ, squama-

run liris purpureo-marginalibus, aperture fove violaceâ, prope marginem dentata; canali brevi.

The Pearl-shell-inhabiting Murex. Shell ovate, encircled throughout with narrow ridges of scales, whorls slightly angled at the upper part, multifariously varicose, varices obtusely rounded, compressly nodose at the angle; white, ridges purple-black, interior of the aperture violet, toothed near the margin; canal short.

Hab. Lord Hood’s Island, Pacific Ocean (found adhering to the Melangripa margaritifera).

A shell of very interesting sculpture, consisting of a succession of narrow purple-black ridges of fine scales upon a white ground.

Species 179. (Mus. Cuming.)

Murex Edwardsii. Mor. testa ovâli, cruciata, transversum irregulariter crebrilatâ, longitudinalem pilato-lobulatum, varicibus interdum duobus vel tribus, interdum nullis; viridi-fusca, aperture fove violacea, prope marginem dentata; canali brevi.  

Edwards’ Murex. Shell ovate, rather thick, transversely irregularly closely ridged, longitudinally plicately tubered, sometimes two or three varices, sometimes none; greenish-brown, interior of the aperture violet, toothed near the margin; canal short.

Purpura Edwaurdsii, Payrandeau.  
Purpura Lasseigae, Bisterot.  
Hab. Mediterranean.

The varices are so irregular in their appearance that the generic character of the species appears to oscillate between that of Murex and Purpura.

Species 180. (Mus. Norris.)

Murex torosus. Mor. testa globosulo-ovâli, ventricosa, costis grandibus tumulis, interstitiis profundis excavatis, liris squamata percurrente, cingulato; varicibus tribus aut pluribus, obtusis; fusca; spirâ brevissimâ.  

The Lusty Murex. Shell globose ly ovate, ventricose, encircled with large tumulous ribs, the interstices between which are deeply hollowed, with a squamate ridge running along; varices three or more in number, obtuse; brown; spire very short.

Lamarck, Anim. sans vert. (Deshayes’ edit.) vol. ix. p. 598.  
Hab. —?

A very unsatisfactory species having much the appearance of a monstrous variety of the Murex crinaceus.
MUREX.

PLATE XXXV.

Species 181. (Mus. Cuming.)

Murex nux. Mr. testá abbreviato-ovata, crassiuscula, transversis obsoletis striáta, basi umbilicata, spirá brevi, acuminata; sepía varicosa, varicibus crassis, solidis, superne subascidasi, canali brevissimo; intestus extusque albá.

The nut Murex. Shell abbreviately ovate, rather thick, transversely obsoletely striated, umbilicated at the base, spire short, acuminated; seven-varicose, varices thick, solid, slightly nodose at the upper part, canal rather short, white within and without.


Hab. — ?

A short gibbous shell with very stout obtuse varices.

Species 182. (Mus. Cuming.)

Murex affinis. Mr. testá fusiformi, transversa pulcherrimae crebrillata, tiris subtiliter sebbrosis, tuberculis dubios approximatis, quarnus uno subobsoletus, inter varices; triaric僚os, varíciis frondosis, frondibus brevibus subulatis; fuscescente, tiris castaneis, apicé frondibusque roseo-violaceis.

The allied Murex. Shell fusiform, transversely very beautifully closely ridged, ridges finely sebbrous, with two tubercles, one of which is somewhat obsoletely, between the varices; three-varicose, varices frondose, fronds short and rather obtuse; light brown, ridges chesnut, apex and fronds pink.


Hab. — ?

This species might easily be taken for a young Murex palma-rose of stunted growth, or a variety of the Murex murus; it will, however, be found on examination to be distinct from both; and its peculiarities of character are perfectly uniform in several specimens that have come under my notice.

Species 183. (Mus. Cuming.)

Murex purpuratus. Mr. testá ovato-fusiformi, subdistortá, tiris obtusis lineisque elevatis circinulatis, tuberculo prominulo inter varices; triariciraos, varíciis frondosis, frondibus brevibus, subunarticulatis, labro internus conspicuus deutilcato, deutilicatu binis; fusco-albicante, castaneo-fusco his illie tincta, margine labri collumellarius rufescence, labri externi limbo vivide purpureo-violaceo.

The purple-stained Murex. Shell ovately fusiform, rather distorted, encircled with raised lines and obtuse ridges, with a rather prominent tuberele between the varices; three-varicose, varices frondose, fronds short, slightly muricated, lip conspicuously toothed within, teeth ranged two and two; brownish white, stained here and there with chesnut brown, edge of columnellar lip reddish, edge of the outer lip deep purple violet.


Hab. — ?

I have not described this shell without some hesitation, because there is a glimpse of some affinity with the Murex calcitropa in it. It, nevertheless, exhibits a great peculuirity of form and colouring, and though I have carefully compared it with many different examples of that species, I cannot identify it with satisfaction.

Species 184. (Mus. Cuming.)

Murex squamosulus. Mr. testá Pyroleiformi, a Munfraclıbus superne planulatis, longitudinaliter plicato-ostata, costis tiris elevatis transversis, alternatae majoribus, pulcherrimae fornicato-squamatìs, clathratìs, canali longisculo; pellicicèe roseo-albá.

The squamulous Murex. Shell Pyrota-shaped, whors flattened round the upper part, longitudinally plicately ribbed, ribs latticed with raised ridges, alternately larger, beautifully ornamented with vaulted scales; canal rather long; transparent pink white.


Hab. Mediterranean.

This is one of those abnormal species of the genus which might with equal propriety be referred to fusus. The squamiferous sculpture of the transverse ridges, which are alternately larger and smaller, is extremely delicate and beautiful.

Species 185. (Mus. Cuming.)

Murex clathratus. Mr. testá subfusiformi-ovata, basi umbilicata, a Munfraclıbus rotundatis, longitudinaliter crebricosatis, costis crassissulis, tiris augustis squamigeris conspicuo clathratìs, canali subrotundo; alba, apice pallide rosaceo.

The latticed Murex. Shell somewhat fusiformly ovate, umbilicated at the base, whors rounded, longitudinally closely ribbed, ribs rather thick, conspicuously latticed with narrow squamiferous ridges, canal a little recurved; white, apex pale pink.


Hab. — ?

Well characterized by its rounded whors, and the sharp elevated squamiferous structure of the transverse ridges.
MUREX.

PLATE XXXVI.

Species 186. (Mus. Cuming.)

Murex rubridentatus.  
Murex testa trigono-fusiformi, transversum obtuso-liratam, tuberculis duobus approximatis inter varices; tricaricosae; varicosae undulato-laminatae, erectis, et apice oblique florentibus, apertura parea, lavo intus conspicue dentata; lactae, auranti-fuscas hic illic sparsi tinctoria dentibus rubris.

The red-toothed Murex. Shell trigonally fusiform, transversely obtusely ridged, with two approximating tubercles between the varices; three-varicose, varices undulately laminated, erect, flowing obliquely from the apex, aperture small, lip conspicuously toothed within; cream-coloured, sparingly stained here and there with orange-brown, teeth red.


Hab. — 2?

A truly interesting species, quite distinct from any hitherto described. It is of a triangular fusiform structure, and each varix consists of an erect plaited lamina flowing obliquely from the apex. The inner side of the lip is strongly toothed, and the teeth being tipped with red upon a milk-white ground have a very chaste and characteristic appearance. Mr. Cuming possesses two examples of this species, both in equally fine condition.

Species 187. (Mus. Cuming.)

Murex spectrum.  
Murex testa erecto-fusiformi, transversum liratam, liris irregularibus, nodosis et tuberculatis, spirea satuis subexcavatis; tricaricosae; varicosae irregularibus, frondosis, frondibus subelongatis, romosis et muricatis, canali longimulco; intuscente, frondibus lirisque costanico-fusicio.

The spectre Murex. Shell erectly fusiform, transversely ridged, ridges irregular, nodose and tuberculated, sutures of the spire rather excavated; three-varicose, varices thickened, frondose, fronds rather elongated, branched and muricated, canal rather long; yellowish, fronds and ridges chestnut-brown.


Hab. — 2?

This new and somewhat remarkable species approximates to the Murex palau-rose in form, though perfectly distinct throughout in its various details of character. Mr. Cuming possesses no information as to its locality, and has not heard of any other specimen.

Species 188. (Mus. Cuming.)

Murex florifer.  
Murex testa trigono-ovatam, subfusiformi, transversum liratam, liris subdistantibus, interstitiis subtilissimis, fusculo-lirisque, frondibus super scabrosis, tuberculo grandis elongato inter varices; tricaricosae, varicosae tinctae, frondibus erectis, floreto, muricatis; albicante, ferrugium-fusciis plus minus tinctoria, frondibus saturatioribus, extremitatis muricatur insus extusque albis, apice roseo.

The flower-bearing Murex. Shell triangularly ovate, somewhat fusiform, transversely ridged, ridges rather distant, interstices very finely cored, cords scabrous over the back of the fronds, with a large elongated tubercle between the varices; three-varicose, varices very beautifully frondose, fronds erect, floriferous, muricated; white, more or less stained with rusty brown, fronds darker brown, muricated extremities of the fronds white within and without, apex pink.


Hab. Honduras.

A fine new species approximating in general appearance to the Murex rothi, from which it may easily be distinguished by the foreable character of the ribs and tubercles, by its white ground colour and pink apex, and the striking effect which is produced by the white-tipped extremities of the fronds.

Species 24. (Mus. White.)

Murex megalerus.—A specimen from the collection of H. H. White, Esq., illustrating a peculiar state of this species (for the normal form of which see Plate VI.), in which the fronds are of a short stunted growth, and the body of the shell particularly stout and gibbous.
MUREX.

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<td>XV.</td>
<td>tennispina, Lamarck</td>
</tr>
</tbody>
</table>

ERRATA.

Species 14. Instead of (p. 91) for description of which see Pl. VIII. (p. IX).
Species 64. Murex acanthocephalus, read Murex acanthocephalus.
Species 26. For Fig. 73. Pl. XIX. Read Fig. 72. Pl. XVIII.
Species 159. Insert the Latin, Murex acanthocephalus, solidus, transversus costatus, costis approximatis, luminevis, variis super punctatum digerentibus; quincunciosum, varicibus prominentibus, puncti formosissimi; abi, facie supera faciata; opened annulus; conus triangulatus, subaequans, ministrum recurvus.
Species 166. Murex exigus, read Murex mundus.
MUREX.

SUPP. PLATE I.

Species 189. (Mus. Gubba.)

MUREX STRIGATUS. *Mur. testá trigono-fusiformis, transversis granulitatis et striatis, tuberculis dobus, quorum uno multo majore inter varices; trivacemos, variaibus regularibus frondosis, frondibus longis, aperturae parce, canaliculis clausis; destulato-fuscescente, costeae transversis undique striatá.*

The striped *Murex.* Shell triangularly fusiform, transversely granulately ridged and striated, two tubercles between the varices, one of which is much the larger; three-varicose, varices regularly frondose, fronds floriferous, equal, aperture small, canal closed; light burnt brown, transversely striped throughout with dark chestnut.

*Hab. ——?

An interesting new species from the collection of M. Gubba of Hayre.

Species 190. (Mus. Taylor.)

MUREX FORIFLUS. *Mur. testá fusiformi, subventricosa, aspecificus transversim obscuris liratis, rugosis, quadricarios, variaibus radiouis, simplicibus, planulatis, obscuris denticulatis, aperturae margine dentato; sordida cinerascence, intus aiguevente-astanea, variaibus albidos.*

The Bedewed *Murex.* Shell fusiform, slightly ventricose, whors transversely obscurely ridged, rugose, four-varicose, varices rude, simple, flattened, obscurely denticulated, margin of the aperture toothed; dull ash-colour, blackish chestnut within, varices white.


Of a very dark chestnut colour interiourly, the outer surface being of a dull ash, with the lip and varices white.

Species 191. (Mus. Taylor.)

MUREX FLORATUR. *Mur. testá trigono-ovata, aspecificus laevibus, trivacemos, variaibus compresso-ovatis, aperturae parce, rotundalae, canaliculae clausae; costeae-fuscescentae, medio transversim albizonata.*

The Mourned *Murex.* Shell triangularly ovate, whors smooth, three-varicose, varices compressedly winged, aperture small, rounded, canal closed; chestnut-brown, transversely white-zoned in the middle.


Belonging to the same division of the genus as the *M. eurypteron.*

Species 192. (Mus. Taylor.)

MUREX BURNETII. *Mur. testá trigono-ovata, erassuscula, aspecificus transversim obsoléte costatis, trivacemos, variaibus latè fimbriatis, dente unico marginali prominenti, aperturae ovali, canaliculae albidis, costeae-fuscescentae plus minuci fistulá.*

Burnett's *Murex.* Shell triangularly ovate, rather thick, whors transversely obscurely ribbed, three-varicose, varices broadly frondate, with a single prominent marginal tooth, aperture oval, canal closed; whitish, more or less stained with chestnut-brown.


A fine species, very distinct from any hitherto described of which only one or two specimens were collected in a more or less mutilated condition. The canal is closed over, and each varix is furnished with a remarkably prominent tooth.

Species 193. (Mus. Gubba.)

MUREX GUBBI. *Mur. testá trigono-fusiformi, ovalis versus contracti, aspecificus superne depresso-concavis, granoso-striatis et liratis, tibus irregulariter nodulosis, trivacemos, variaibus frondosis, frondibus angustis, irregularibus, unice medio bicuspidate, superne multo majore, peculiariter falcate; labro intus conspicuo dentato; adustae, prope basim anticé fuscescente, aperture fenestrocæscente-albida.*

Gubba's *Murex.* Shell triangularly fusiform, contracted towards the base, whors depressly concave round the upper part, transversely granosely striated and ridged, ridges irregularly nodulous, three-varicose, varices frondose, fronds narrow, irregular, a single middle one bifurcated, the uppermost frond much the larger, peculiarly hooked; lip conspicuously toothed; cinder-black, fulvous in front near the base, interior of the aperture bluish-white.

*Hab. ——?

June, 1849.
M. Gubba possesses two specimens of this very interesting new species, to which I have the pleasure of attaching his name.

Species 194. (Mus. Cuming.)

**Murex unicornis.** *Murex* testa subfusiforme-oblungá, crassá, obliquě trigoná, transversim obscurě costátá, tuberculo magno inter varices, varicolós incrassátis, obtusis, ultimo intim deenticulato, dente unico conspicuo erecto elongato, canali brevissimo, clauso; albá, castaneo linctá.

**The unicorn Murex.** Shell somewhat fusiformely oblong, thick, obliquely triangular, transversely obscurely ribbed, with a large tuberle between the varices, varices thickened, obtuse, last whorl deuticulated within, one tooth conspicuous, erect, elongated, canal very short, closed: white, stained with chestnut. 

*Hab. — ?*

This approaches very near to the *M. monoceros*, but is of a different form and of more solid growth.
MONOGRAPH

OF THE GENUS

CYPRÆA.

"What wonder then if with one virtuous touch
The arch-chimic sun, so far from us remote,
Produces, with terrestrial humour mixed,
Here in the dark so many precious things
Of colour glorious and effect so rare."—Milton.
Genus CYPREÆ, LINNÆUS.

Testa ovata vel oblongo-ovata, ventricosa, pellis, interdum nodifer vel costellata, extremitatis caudiferis aut enarginatis; spiræ brevissimæ, partia vel omnium occultæ; apertura subcentrali, longitudinali, angusta; columna labroque per totam longitutinem plus minusve denticulata, interdum at raro edentulis.

Shell ovate or oblong-ovate, ventricose, polished, sometimes nodiferous or ribbed, with the extremities channelled or enarginated; spire very short, partially or entirely concealed; aperture nearly central, longitudinal, narrow; lip and columnella more or less toothed throughout their entire length, sometimes, but rarely, without teeth.

There is perhaps no group in the series whose shells have excited more admiration than those of the Cyprea; the Cowry is generally the first to attract the attention of the amateur, and its physiological history offers matter of no less interest to the man of more abstruse habits of enquiry.

The Cyprea is a mollusk of very peculiar character: first, on account of the different phases presented by its shell at different periods of growth; and, secondly, on account of the curious property which the animal possesses of dissolving and renewing its shell. The original growth of the Cowry is, undoubtedly, a process of time; but the re-calcification of a shell at maturer age appears to be the work of a few days only.

The first stage of advancement produces a simple convolution of shell around a columnella axis in the form of a long drawn out Bulba, the columnella being smooth, the outer lip thin, and the colour usually diffused in bands of waves. In the second epoch of growth the shell solidifies, the lip and columnella begin to thicken, and present gradual indications of teeth, the teeth become more and more perfectly developed, and the dorsal surface is overlaid with a strong coat of livid colouring matter also diffused in obscure bands or waves. The calcifying energies of the mantle, which, extending in two unequal lobes one from either side of the shell’s aperture, have been chiefly exercised during the second epoch of growth upon the dorsal surface, are now more particularly directed to the base and sides. The teeth are strengthened, the sides become thickened with a rich coating of enamel, and the growth of the shell is completed by a light fabric of colouring matter deposed in lines, blotches, waves, or reticulations, of various hues and patterns.

The re-calcification of a shell at maturer age has been a subject of some difference of opinion amongst naturalists. Bruguière first introduced the fact, and Lamarck says “I possess observations which tend to prove that the Cowry, arrived at the power of forming a complete shell, has still the faculty of enlarging its habitation, and is then obliged to quit the shell in order to form a new one. It results from this that the same individual has the power of forming a successive number of shells during both the second and third stages of growth; and which accounts for our often meeting with so many different sizes of the same species”!

M. Deshayes, after furnishing us with an excellent account of the zoological characters of Cyprea, derived mainly from the observations of M. M. Quoy and Gaimard, argues against the possibility of any re-modelling of the shell taking place, and regards the statement of Lamarck as a theory opposed to the common laws of organization. To the supposition of Bruguière that the Cowries cast their shells after the manner of Crabs, M. Deshayes very properly replies that there can be no analogy between them. The new shell of the Cragon is formed by a secretion of equal consistency from every part of the body, whereas the Molusca have a muscular attachment to the columnella, and increase the growth of their shell by an exudation, not from the whole body, but from a particular organ,—the mantle being the sole agent charged with that faculty. It is further argued by the same distinguished naturalist that the Cowry must lose the power of forming the inner chambers of the columnella anew, after having once passed that early process of development which induces their formation. “How is it possible,” asks M. Deshayes, “that the animal can, under the circumstances of its nature, secrete a new shell from all parts of the body at once, and with all the different phases of colour exhibited in the original, when it has reached to an advanced condition of its existence?”

November 1845.
It is, however, certain that the Cowry is enabled to effect a very important change in the shell during one or more periods of its life; and I think the fact may be fully established without prejudice to the excellent arguments of my illustrious contemporary. From the testimony of a gentleman, who worthily employs the opportunities afforded him as a Naval Officer to the advancement of science, whose veracity is beyond all question, and whose communication (given verbatim) * contains nothing more than a simple narrative of the phenomena of which he was himself an eye-witness, it may, I think, be deduced that it is the outer wall of the shell only which is re-constructed, the columella with its spiral compartments remaining undisturbed. The animal does not quit the shell as Lamanek supposed, but dissolves the outer portion with its acetoce juices. All visible trace of the shell may be thus removed without weakening M. Deshayes' proposition founded on the circumstance of the mantle being the only organ charged with the secretive fluid. The mantle is always capable of extension over the shell; and the same power which furnishes the adult with its last coating of enamel can be exerted to the formation of as many superinunbebt layers as may be necessary to replace all that has been decomposed. That a dissolution takes place there can be no doubt:—"the shell gradually swells," says Lieut. Hankey, "and cracks, becomes thinner, and duller in colour, and finally disappears;" a circumstance which may be easily credited when it is remembered that the *Marpe possesses the faculty of removing spines or any similar obstacles to its advancement of growth, and that the *Platoleus, and other terebrating mollusks, exercise a power of absorbing which enables them to penetrate the hardest limestone rock. The microscopical structure of the Cowry shell is, moreover, of a nature peculiarly tenacious of absorption; it is composed of a large quantity of carbonate of lime in proportion to the amount of membranous substance; and this accounts for its surface becoming vitrified, as it were, to such a highly polished state of enamel when in contact with the acidity of the soft parts.

There is another circumstance in Lieut. Hankey's narrative to which attention should be given, respecting the formation of the new shell:—the glutinous matter which has the appearance of shell-lac, and is so fragile that it yields to the touch, does not assume the narrow cylindrical *Bulla form, it does not follow the original plan of revolv- ing round a columnar axis, but is of the wide, ventrilo- cose shape of a *Cypraea, and rapidly consolidates into the adult shell.

With these generalizations I think it may be assumed that the Cowry possesses the faculty of decomposing, during one or more periods of its existence, any portion of the shell that is liable to resist its advancement of growth; that the renewal of the shell is accomplished within a comparatively short space of time; and that the columella with its internal spiral partitions remains undisturbed. It may, however, be inferred that it is an operation of extremely rare occurrence, and one which only happens under peculiar conditions.

The *Cyprae present two very distinct groups;—the larger species in which the surface of the shell is highly enamelled, and the smaller species in which it is disposed in grooves and ridges of a lighter character and of more delicate colouring. In the first division there are two or three species from South Africa of a peculiar opake white structure, of which the *C. Algoeens and *Copernis may be quoted as being the types of Mr. Gray's genera *Luponia and *Cypraeenula; the second division is the genus *Trivia of the same writer.

The genus *Cyprae presents little variety of form but a diversity of colouring; it contains several very distinct and characteristic species of unusual rarity, and which our country can alone boast of possessing. Of these the *Cypraea princeps and *tecomel, in our national collection,

* Lieut. J. B. Hankey, R.N., to Lovell Reeve.

My dear Sir,

Will you allow me to offer you a few remarks on the habits of the Cyprea as regards the fact of its making a new shell, at an advanced age, of which process I have been myself in more than one instance an eye-witness. I have seen the Cowry crawl into some hollow or sheltered place, evidently for some predetermined purpose. The growth of the animal appears to increase too large for its cell; it gradually swells and cracks the shell, and I think that some powerful solvent or decomposing fluid is distributed over the outer surface by the mantle of the fish, for it gets thinner in substance, and the colours duller in appearance. The shell then entirely disappears, the Cowry becomes, to all appearance, a naked mollusk, with no other covering than its membranous mantle, and in a short time secretes a thin layer of gluttonous matter which in a few days obtains the fragile consistency of shell-lac. From this step its growth is more rapid, and it becomes more and more consolidated into the adult shell. When in the first stage of renewal it has the appearance of shell-lac it is always of the *Cypraea form, but I have never succeeded in preserving any specimen in this state on account of their extreme fragility.

Trusting that you may make some use of these notes, and that (as I have a good dredge with me) I may, like Mr. Cunning, succeed in bringing home something worthy of notice, I shall conclude myself, my dear sir,

Yours very truly,

John B. Hankey.

H.M.S. Collingwood, August 6th, 1844.
are perfectly unique; it seems curious that Nature should not have exercised her accustomed prodigality in the perpetuation of these species, for instead of being the solitary living witnesses of an extinct period of the world’s history whose fauna only remains to us in a fossil state, they are a new creation, framed with an exuberance of character quite unapproached by any other species. They are both in the finest possible condition, and may certainly be regarded as the most valuable shells yet discovered. The next in value are the C. Broderipii and guttata; of the former, three specimens are known, two of which are in this country; of the latter, five, of which we possess four. Of distinguished rarities of smaller size may be mentioned C. Cumingii, Saulite, xanthodone, sialis, contaminata and teres, all in our collections.

There is little to be said on the geographical distribution of the Cowries except that they are strictly tropical. Only one or two very small grooved species are found on our own coast, and none larger than the C. brevica in the Mediterranean. The C. Scottii may be quoted as a fine example of the New Holland region, and the C. aurora, which is now a shell of frequent occurrence, of the Pacific. The C. pantherina is brought in extraordinary abundance from the Red Sea, but the great portion of the species are from Mauritius, Ceylon, and other parts of the eastern world.

The genus Cyprea has been so fully and ably investigated by Mr. Gray and Mr. Sowerby, that scarcely a species is to be found which has not already been described and figured; I have only, therefore, in the absence of any novelty in kind, to contribute such observations as may appear to be worthy of recording.

Species 1. (Fig. a Mus. Saul. and b. Mus. Cuming.)

**Cyprea Mauritia.** Cypre. testa subovata, crassissimâ, dorso gibboso-elliptico, lateribus angulatis, basi concavo-planulâtâ, apertura valde sinusâ, dentibus prominentiis; basi lateralisque nigricante-fuscis, dorso sulcato-fusco, subfuscato, reticulâ irregulari nigricante-fusco superficie, colomella albicante.

The **Mauritian Cowry.** Shell subovate, very thick, back elevated into a kind of hump, sides angulated, base conevually flattened, aperture very sinusious, teeth rather prominent; base and sides blackish brown, back light fulvous brown, obscurely banded, covered over with a reticulated coating of blackish-brown, colomella whitis.

**Testa junior.** (Fig. a.)

Fulvo-fusca, maculis lateribus flammeolis triangulavis promiscuex aur subirregulariter fusco-fusco ornatâ. Fulvous brown, ornamented with triangular yellowish flame-like spots arranged either promiscuously or in three irregular bands.

**Testa juvenis.**

*Fulva, fusco fasciatum unulata.*

Yellow, with bands of waved brown.

**Linneus. Syst. Nat.** (12th edit.) p. 1176.

**Hab.** Island of Mauritius, Ceylon, &c.

The form of this shell is chiefly distinguished by the hump-like elevation of the back, and concavity of the base. Its primitive colouring in the Bulla form is a pale yellow, over which the fulvous brown spreads in bands of waves; in an intermediate state the waves become agglomerated, and leave the yellow in triangular flame-like spots; and when the teeth are fully developed, the sides become thickened with a rich dark blackish-brown coating which is thinly spread over the dorsal surface, opening into irregular reticulations just as if its flow had been disturbed by the intermixture of some oily liquid.

Such a variation of colour as is exhibited in this shell at different stages of growth, has naturally given rise to many errors among early writers which it is scarcely necessary to enumerate. Gmelin describes it in its earliest state as a Bulla, (*Bulla cyprea,*), and in its intermediate state as a species (*Cyprea fasciata,*), distinct from the adult. Chemnitz figured a fine example of the middle stage of growth, such as I have represented at fig. a, as “The Queen of Cowries” (*Cyprea carinae reginae,* and other names have been introduced of which no notice need be taken.

The **Cyprea Mauritiana** must be a molusk of great muscular power, for its shell is truly the heaviest and most solid of the series; the enamel round the sides is deposited with remarkable thickness, and its appearance altogether indicates a considerable degree of energy in the testaceous properties of its inhabitant.

Species 2. (Mus. Saul.)

**Cyprea Arabica.** Cypre. testa oblongo-ovata, basi sub-planulâtâ, lateribus plus vienues incassatis; dorso livido-fusco indistinctâ fusco, lineis brevibus hieroglyphicis hic illic interrotatis, vacuis orbicularibus formavit; longitudiniter ornato; basi albo-cantans, plus vienues rubido-fusco tintis, lateribus umbilicalis fusco-nigricantibus promiscuex pictis; dentibus rubido-fuscis, extremitantibus nigricantibus.

The **Arabian Cowry.** Shell oblong-ovate, base rather flattened, sides more or less thickened; back livid-brown, indistinctly banded, longitudinally ornamented with short hieroglyphical lines, interrupted here and there so as to form round vacant areas, base whitish; more
or less tinged with reddish brown, sides promiscuously painted with brownish black spots, teeth reddish brown, extremities blackish.

Testa junior.

*Livido-creulescente, fusco mutato-fuscata.*

Livid-blue, banded with brown waves.

Variety *Cypraea eglantina* Duclos.


Hab. Eastern Seas.

The *Cypraea Arabica* is well distinguished by the lines of hieroglyphical character which cross the dorsal surface from one extremity to the other, leaving a greater or less number of circular vacancies showing the under coating; the sides are ornamented with a number of promiscuous blackish spots, some of which are often partially obscured by the overlying of the brown-tinged milky enamel of the base.

The young of this species appears to have been described by Linnaeus in different states under the names of *Cypraea fragilis* and *amethystea*; and an oblong livid-green variety in which the Arabic lines are fine and rather close-set has been named by Duclos *Cypraea eglantina*.

**Species 3. (Mus. Cuming.)**

*Cypraea reticulata.* Cypr. testa ovata, lateribus dorsisque gibbosis, lateribus valde incrasatis; dorso livido-creulescente, fissescente obscuro fasciato, reticulata consummatâ fusca undique picta; basi lacta, maculis purpureo-nigricantibus promiscuè et creberrimè pictâ; dentibus nigricante-fuscis.

**The reticulated Cowry.** Shell ovate, sides and back gibbous, sides very much thickened; back livid-blue, obscurely banded with very pale brown, and painted throughout with elaborate net-work; base milky white, promiscuously and very closely painted with purple-black spots; teeth blackish brown.

**Martyn,** Universal Conchology, pl. 15. *Cypraea histrio,* Gmelin, Lamarck.

*Cypraea arlequina,* Chemnitz.

*Cypraea Arabica var.,* Gray.

Hab. Eastern Seas.

I quite agree with Lamarch in the propriety of distinguishing this shell from the *Cypraea Arabica*; it is true they run very closely into each other, but we must judge of their typical difference. The *Cypraea Arabica* is of an oblong form, marked with lines of hieroglyphical character running from one extremity to the other, but interrupted in such a manner here and there as to leave an irregular display of vacancies showing the under layer of colouring matter. In the *Cypraea reticulata* the under layer of colouring matter is much more exposed, the dorsal surface having merely a fine net-work thrown over it, the vacancies in which are clear and definite. This peculiarity of pattern in the Cowries has not been correctly represented by the term "spots"; it is only a deposite of colouring matter such as characterizes the *Cypraea tigris*, and the sides of these shells, that can be termed spots. These spot-like appearances are merely that visible portion of the under layer of colouring matter which the light fabric of the adult does not affect.
CYPRÆA.

Plate II.

Species 4. (Mus. Saul.)

CYPRÆA EXUSTA. Cypr. testa pyriformi-ovata, antice contractione, basi lateralisque rotundatis, aperturâ subsimulosis, extremitate postica productâ; dentibus subtilibus numerosis brevisibus, interioribus plus minusque tritis; columna parte internâ cum concavitate antice levigatis; dorso exueto-fusco, obscurâ fasciata, interdum flavescens, extremitatis lateribus basique piceo-nigris, dentum interstitialium albidis, columna parte antice albidâ.

The scorched Cowry. Shell pyriformly ovate, contracted anteriorly, base and sides rounded, aperture subsinuous, posterior extremity produced; teeth fine, numerous, short, inner teeth more or less worn, internal portion of the columella, together with the anterior concavity, smooth, back dark burnt brown, obscurely banded, sometimes yellowish, extremities sides and base pitch-black, interstices between the teeth whitish, anterior portion of the columella whitish.

Sowerby, Conch. Illus. Cat. Cypræidae, No. 25. f. 2.*.

Cyprea talpa exusta, Gray.

Hob. Red Sea.

Although the differences between the Cyprea talpa and exusta are of so nice a character, they are nevertheless uniform and constant. The distinguishing features of the C. exusta consist in its rounded pyriform shape, peculiarly pinched, as it were, at the anterior end, with the posterior extremity more than usually produced under similar influence. The teeth are fine and merely marginal in the outer lip whilst in the anterior concavity of the columella, which is destitute of any colouring matter, and on the inner portion, they are completely absorbed or abraded. Another peculiarity in this species is that the dorsal surface is usually of a rich dark burnt colour.

The Cyprea exusta first made its appearance among a large importation of Cyprea pantherina. Some merchants of Alexandria traded to some considerable extent, a few years since, in the Panther Cowry of the Red Sea; a number of cases were sent to this country, containing from three to four hundred pounds weight of them, and they were publicly sold in the produce market. Amongst these a few of the Cyprea exusta and pulchra were found, but none of the Cyprea talpa.

Species 5. (Mus. Saul.)

Cyprea talpa. Cypr. testa cylindro-ovata, oblongâ, lateribus angulato-rotundatis, basi subdepressâ; dentibus parvis, numerosis, interdum columnella subobliquâ et irregulariter transcurrentibus; dorso flavescente, obscurâ bi-trifasciata, extremitatis lateribus basique exustâ nigricante-fusis, dentum interstitialium albidis.

The mole Cowry. Shell cylindrically ovate, oblong, sides angularly rounded, base rather depressed; teeth running somewhat obliquely and irregularly across the columella; dorsal surface pale yellow, obscurely two or three-banded, extremities sides and base dark burnt or blackish brown, interstices between the teeth whitish.


Hob. Eastern Seas.

This species will be found upon comparison to differ materially from the preceding in form. The Cyprea exusta is of a rounded pyriform shape, contracted towards the anterior extremity; the Cyprea talpa is of an oblong cylindrical form with the base just sufficiently flattened to give a slight angular character to the sides. The outer teeth are not worn away, but very neatly developed across the entire surface of the columella; the spire of the Cyprea talpa is less concealed by the superposition of the basal coat of enamel; the enamelling is altogether lighter, and there are many appearances in the shell which seem to indicate that the calcifying properties of its inhabitant are of a less energetic character than those of the Cyprea exusta.

It may be as well perhaps to notice that in the young of this species, the shell is entirely yellow, with obscure brown-tinted bands; the rich basal coating of dark enamel is the last deposit in its formation.

Species 6. (Fig. a and b Mus. Cuming.)

Cyprea cervus. Cypr. testa oblongo-ovata, tenuicollis, ventricosis, apertura lateralis, nucicæ patentiore, extremitatis lateribus nucicæ peculiariter plano-productis; fulvescens, nucicæ parvis numerosis, raro ocellatis, ornatâ; dentibus nigricante-fusis, internis confertis, subirregularibus; ira violacei.

The stag Cowry. Shell oblong-ovate, rather thin, ven-

November 1845.
tricose, aperture rather wide, more open anteriorly, ante-
rior extremities peculiarly flatly produced; fulvous brown,
ornamented with numerous rather small white spots, rarely
occellated; teeth blackish brown, the inner close-set and
rather irregular; interior violet.

Testa junior. (Fig. 6. a.)

Testa junior fasciis quaternis laetiusculis cercove-plumbeis
transversim radiata.
Younger shell transversely radiated with four rather broad
blueish lead-coloured bands.
  LINNÆUS Maujissa, p. 548.
  Cypraea cervina, Lamarck.
  Cypraea cervina and cervinetta Kiener, Deshayes.
  Hab. Pacific Islands (under stones); Cuming.

This species is, as Chemnitz truly calls it, the “Cypraea
rum maxima”, peculiarly distinguished from its congener
the Cypraea exanthema by a light inflated growth, smaller
occellated spots, and wider separation of the lip and colu-
mella anteriorly; it has, however, a diminutive variety as
the name cervinetta, adopted by Kiener and Deshayes
implies. In this the colours are of a deeper hue, the
bands of the younger shell are of a leaden blue colour and
the basal coating of enamel in the adult is of a rich dark
brown.

The Cypraea cervina and exanthema were frequently con-
founded together by early writers; Gmelin and Schreiber
have even made four species of the different phases which
they exhibit at different periods of growth,—Cypr. plum-
bea, dubia, bifasciata and oculata. These synonymes are,
however, best left in obscurity; in the present state of our
knowledge, with the means of figuring examples of all the
different stages of growth in the finest possible condition,
ay errors that may have arisen from a less perfect state of
things, once exposed, had better remain unrecorded.
CYPREA.

**PLATE III.**

*Species 7. (Mus. Saul.)*

**CYPREA PANthereINA.** Cypr. testæ sudpyriformis-ovata, ventricosissimæ, extremiæ fuscosæ, subangustatæ, aperturæ acutæ paululum biantæ, dentibus parviscirulis, praecipue columellaribus; abhinc, flavo furfuo incivitæ, dorso guttis nigricantifuscis, lateribus carinæ-nebulati ant internæ castaneis, profusè picti, lineæ dorsali fusciscentis, lateribus sepæ rufo aut violaceo tinctis.

The Panther Cowry. Shell somewhat pyriformly ovate, rather ventricose, extremities slightly attenuated, aperture a little gaping at the anterior end, teeth rather small, especially the columellar; whitish, besmeared with red and yellow, back profusely painted with intensely chesnut or blackish-brown spots, sometimes clouded with blue, dorsal line rusty red, sides often tinged with red or violet.

Testa junior.

Testa junior cinereo-circidescens, fulvo rufoque nebulata.

Younger shell shaly green, mottled with red and yellow.

Solander, Dillwyn, Cat. of Shells, v. 1. p. 449.

Cyprææ guttata et tigrina, Lamarck.

Monstrosity. *Cyprææ umbilicata, Sowerby.*

_Hab._ Red Sea.

This shell, which has been received in extraordinary abundance from the Red Sea, varies in colour from a pale sickly white to a very deep chesnut red, profusely adorned with small blackish-brown spots clouded with blue.

The shell, described and figured by Mr. Sowerby in the Tankerville Catalogue, under the name of *Cyprææ umbilicata,* has been subsequently acknowledged a monstrosity.

The name _tigrina,_ given to this species by Lamarck, would certainly have been adopted had it not been previously used, though erroneously, by Gmelin. The names given to shells by Dr. Solander are of no authority unless adopted and printed by any subsequent naturalist; although they appear in a manuscript to which all the world may have access, yet, they have never been strictly published.

*Species 8. (Mus. Saul.)*

**CYPREA ARGUS.** Cypr. testæ orato-oblongâ, subcylindrœcæ, medio leviter contractæ, aperturæ subangustatæ, dentibus mediocris, numerosis; lactæ-fuscæscends, dorso trifuscicato, fasciis lati, diametro rom variòrum annòis defor-

CYPREA PANthereINA. *Cypr. testæ sudpyriformis-ovata, ventricosissimæ, extremiæ fuscosæ, subangustatæ, aperturæ acutæ paululum biantæ, dentibus parviscirulis, praecipue columellaribus; abhinc, flavo furfuo incivitæ, dorso guttis nigricantifuscis, lateribus carinæ-nebulati ant internæ castaneis, profusè picti, lineæ dorsali fusciscentis, lateribus sepæ rufo aut violaceo tinctis.*

The Argus Cowry. Shell ovately oblong, somewhat cylindrical, slightly contracted in the middle, aperture rather narrow, teeth middling, numerous; pale milky brown, back three-banded, bands broad, profusely painted with a greater or less number of misshapen fulvous brown rings of different diameters, some of which are filled in, base ornamented with four large blackish chesnut spots, two on each side the aperture, of which the columnella are much the larger; teeth edged with brown.

Testa juvenis.

Testa juvenis fulvescente-fusca, fasciis plurimis angustis, maculis castaneis perpendis irregularibus interruptis, cinclata.

Young shell pale fulvous brown, encircled with several narrow bands, interrupted with a very few irregular chesnut blotches.

_Linneus, Syst. Nat. (12th edit.) p. 1173._

_Hab._ Ceylon, &c.

It is difficult to conceive from what peculiar modification of the mantle, this shell receives its curious deposit of rings. They are of very irregular size, and much more numerous in some specimens than in others, one here and there being filled up with colour. I have two or three very young examples of this species in the Bulla form collected by Mr. Cuming, but never remember to have seen it in the stage of growth, before the rings are diffused.

The *Cyprææ Argus* is well named after the hundred-eyed Aestorides, although its imaginary eyes vary in different specimens from one to at least five hundred in number.

*Species 9. (Fig. 6. Mus. Saul, Fig. 8. Mus. Cuming.)*

**CYPREA TESTUDINARIA.** Cypr. testæ elongato-ovata, subcylindrœcæ, crassæ, extremiæ fuscosæ, subangustatæ, dentibus mediocris, numerosissimis; lactæ-fuscæscends, dorso trifuscicato, fasciis lati, diametro rom variòrum annòis defor-

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The tortoise-shell Cowry. Shell elongately ovate, somewhat cylindrical, thick, inclining steeply down each side towards the extremity, aperture narrow, teeth rather small, numerous; milky brown, back clouded and spotted with fulvous and chestnut brown, and profusely sprinkled with minute white scurf-like dots, base flesh-tinged brown.

Testa junior.

_Testa junior lacto-fusca uniusmodi obscurè fasciata, fasciis circa columellam maculis castaneis irregularibus interruptis._

Young shell uniform pale milky brown, obscurely banded, bands interrupted about the columella with irregular chestnut blotches.


_Hab._ Mauritius.

This is certainly a most characteristic species, unlike any other of the genus both in form and colouring, which latter, as its name implies, is of a rich tortoise-shell pattern. The chief peculiarity of the shell consists in its being sprinkled with a fine scurf of promiscuous white specks, which may be observed to be imbedded at different depths in the enamel; and it is only in the last coating of enamel that this scurf occurs.

In the young shell there are several bands of interrupted chestnut-brown blotches, very irregular in size, and more or less obscure in appearance; they begin to change as the second stage of growth is proceeding, and entirely disappears during the progress of the third.
CYPRAEA.

Species 10. (Mus. Saul.)

CYPRAEA SCOTTI. Cypr. testa oblongo-nariformis, extremitatis contractis et erecto-recurvis, apertura angustata, simillata, dentibus parVIS, numerosis, interioribus plus minusce obsolentis, exterioribus, quorum nummulis mediunis bipartitis, brevibus; dorso cinereo-ceruleolascensente, flavescente-fusco promiscue maculato et nebulato, basi lateribusque piceo-fuscis.

Scott's Cowry. Shell oblong-boat-shaped, extremities contracted and erectly recurved, aperture narrow, simulated, teeth small, numerous, the inner more or less obsolete; the outer, some of the middle of which are bipartite, short; back pale ashy blue, promiscuously blotched and clouded with yellowish brown, base and sides dark pitchy brown.

Variety B.

Testa brevior, dorso gibboso-elevato, maculis omnino nebulatis; dentibus exterioribus basae super transcurrentibus. Shell shorter, back gibbously elevated, with the spots wholly clouded into each other; outer teeth running across the base.

Testa junior.

Testa junior coruleo-lactea, obscurè fasciata, maculis flavescentes-cuniculis hie illic ornata, colomella basi albicante. Younger shell blueish milky colour, obscurely banded, ornamented here and there with pale yellowish-brown blotches; base of the columnella whitish.

Testa juvenis.

Testa juvenis inimnusodi lacteо-aurantia, colomella basi nivea. Younger shell uniform milky orange colour, base of the columnella snowy white.


Cyprea Friendii, Gray.


This very striking species was introduced about fourteen years since, by Mr. Broderip, in the Zoological Journal, from two eroded specimens, brought by the Rev. Archdeacon Scott, from Angia, in the Island of Java. Since then, several examples in the finest possible condition have been received from Swan River, New Holland, with a very characteristic variety from Port Lincoln of the same continent; and I am now enabled to give an amended description of it in different states of growth. The shell in its first Bulla, or rather Cymba, form, is of an uniform pure clear milky orange colour, it then assumes a blueish tinge disposed in obscure bands, and begins to show a few bright tortoise-shell brown blotches, which rapidly accumulate, as exhibited in the adult, long before there is any indication of teeth. This is an arrangement different to that of most Cowries, in which the teeth are chiefly developed before the last layer of colouring matter is deposited. The sides and base then become thickened with an extremely rich pitchy brown coating of enamel, and the extremities compressed and turned upwards.

The variety from Port Lincoln differs most conspicuously both in form and colour; it is much shorter, the back is swollen and elevated almost into a hump, the extremities are blunted, and the outer teeth, which in the Swan River variety are scarcely more than marginal, extend across the base, especially the anterior portion, in grooved prominent ridges. The inner teeth of this species are very obscure; indeed, the columnella is mostly edentulate.

The young of this species and several others will be figured together at the close of the monograph.

Species 11. (Mus. Cuming.)

CYPRAEA AURANTIA. Cypr. testa oblongo-ovata, ventricosá, immaculata, dorso dentibus interstitiisque vicidse aurantia, basi lateribus et extremitatibus lacteis.

The orange Cowry. Shell oblong-ovate, ventricose, unspotted, back, teeth, and interstices bright orange, base, sides, and extremities milk-white.

Testa junior.

Testa junior colunellae vicidse aurantia. Younger shell with the columnella bright orange.

Martyn, Universal Conchology, vol. 2. f. 59.

L'Orange, Favanne.

Cyprea aurora, Solander, MSS. Chemnitz.

Hab. Tahiti, Pacific Islands.

The history of this rare and beautiful species has been so often described, that it only remains to call attention to an interesting example in the British Museum, not quite

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arrived at maturity, in which the columnella is of the same rich orange as the back, prior to the layer of white enamel being deposited.

Species 12. Fig. a. and b. (Mus. Cuming.)

CYPRÆA TIGRIS. Cypr. testa ovalis, ventricosa, basi plano-concava, dentibus majuculis; dorso albidus und flavescens, guttis nigricantibus majuculis, coruleo nebulatis, promineat pecto, basi nervis, immaculata.

The Tiger Cowry. Shell ovate, ventricose, base flatly concave, teeth rather large; back whitish or yellowish, promiscuously painted with rather large blackish blue-clouded spots; base snowly white, unspotted.

Testa junior.

Testa junior albida, flavmis ferrugineis undatis subdistantibus ornata.

Younger shell whitish, ornamented with rather distant zigzag rusty brown flames.

Testa juvenis.

Testa juvenis uniusmodi castenea, albidosflavicante interdum interrupta et fuscata.

Young shell uniform chestnut, sometimes interrupted and banded with pale yellow.


Hab. Eastern Seas.

Testa junior, Cypraea flammea, Gmelin.

The progress of this shell exhibits a curious variety in the style of colouring:—first, it is a uniform chestnut bay, the colour then breaks up, as it were, into bands of close-set waved blotches of a richer hue, a coating of white is then superimposed, and upon that is deposited a series of rather distant zigzag flames, such as are represented at fig. a. The rich colouring of the first state is now, therefore, concealed, and nothing is seen but a few zigzag flames upon a white ground; the teeth are forming in the mean time, and a few spots of colour make their appearance round the outer side. In the next state of the shell, a second layer of white enamel is superimposed, a thinner and more delicate stratum than the preceding, through which the zigzag flames may be seen of a milky hue; and, upon this surface a number of dark spots are deposited. These are again overspread by a third white coating, intermixed with numerous rich black and brown spots, showing, for the first time, a narrow dorsal hiatus, mostly edged with reddish brown with the first deposite of dark spots, thus overspread, of a blueish milky hue.

I cannot resist inserting the following interesting observations on the habits of this species by Mr. Broderip.

"Mr. Samuel Stutchbury, who had an opportunity of examining many individuals of C. tigris at the Pearl Islands, informed me that these cowries lived there in very shallow water, and always under rolled masses of Madrepore. They never were to be seen exposed to the sun’s rays. On lifting one of these masses, a Tiger Cowry was generally observed with its shell entirely covered by the large mantle which was mottled with dark colours, the intensity of which the animal seemed to have the power of changing; for the colour varied in the same light and in the same medium, after the manner of the spots on the Cephalopodous Mollusce, or, to use a more familiar instance, somewhat in the same way that the hues of a turkey-cock’s wattle vary. On touching the mantle, it was immediately withdrawn within the shell, which became exposed in all its brilliancy. So firmly did the soft parts adhere to the shell, that, in no instance, (and the experiment was often made) did Mr. Stutchbury succeed in extracting them by force, either during life, or before decomposition took place. He was obliged to let the animal die, and suffer the soft parts to decay, in order to remove them.”—Zool. Journal, vol. iv. p. 163.
CYPREÁ.  

PLATE V.  

Species 13. (Mus. Cuming.)  

CYPREA BRODERIPII.  
Cypr. testa ovata, ventricosa, crassissimis, dentibus numerosis, conspicuous, columnellarius longiusculus, regularibus; dorso roseo et flavido-albicante obscurè fasciato, rectiulá irregulari aurantiio-fuscescente maculísque niveis latera versus arato, lateribus et extrémitatibus fuscescentibus, basi fuscescente, roseo-aurantiio tincta; dentibus albidis.  

BRODERIP'S COWRY. Shell ovate, ventricose, rather thick, teeth numerous, rather long and regular; back obscurely banded with yellowish white and rose-pink, and ornamented with a pale orange-brown net-work, with snow-white spots towards the sides, and extremities drab-brown, base of the same colour tinged with a warm glow of rose-orange; teeth white.  

GRAY, Descriptive Catalogue (inedit).  
Sowerby, Conchological Illustrations, Cat. Cypreae, no. 20, p. 2.  

Hab. Island of Madagascar (found on the reefs); Rev. W. V. Heman.  

Of this beautiful and very characteristic species only three specimens have yet been discovered, two, now before me, from the collections of Mr. Cuming and Miss Saul, and one in some private collection, I believe, in the United States. Although it partakes in some measure, of the characters of the Cyprea vitellus and nicoa, it is perfectly distinguished from both by its fine columnar teeth, delicate rose-pink and rose-orange colouring, and superincumbent deposit of brown net-work. As in most highly enamelled Cowries the base is radiated with fine hair-like scratches.  

It is a beautiful species, and honours the name of a gentleman highly esteemed in the conchological world, and to whose princely zeal our national collection is indebted for the great treasures of the genus.  

Species 14. (Mus. Saul.)  

CYPREA VITELLUS.  
Cypr. testa ovata, ventricosa, crassis, anticé texter attenuata, dentibus fortissimis, dorso fulvo-spadiceo, gutis niveis varie magnitudinis adpersis, lateribus olivaceo-fuscis, areneis, striatis; basi, extraentatibus, dentibus, interstitiisque roseo-albicantis,  

THE LITTLE Calf COWRY. Shell ovate, ventricose, thick, anteriorly slightly attenuated, teeth rather strong, back fulvous bay colour, sprinkled with snow-white spots of various sizes, sides olive-brown, arenaceous, striated; base, extremities, teeth, and the interstices between them pinkish white.  

Testa junior.  
Testa junior olivaceo-cinerea, obscurè fasciata, immaculata.  
Younger shell olive-ash colour, obscurely banded, unspotted.  

Hab. Eastern Seas.  

This species is strongly characterized by the curious sand-like strie with which the sides are coloured, and the miniature firmament of spots, of different degrees of magnitude, which adorn the whole of the dorsal surface.  

Whether Linneus named this shell from vitellus, a little calf, or vitellus, the yolk of an egg, I am unable to determine, for it resembles one as much as the other.  

Species 15. (Mus. Cuming.)  

CYPREA STERCORARIA.  
Cypr. testa ovata, subventricosa, antice contracta, lateribus angulatis, basi concavo-depressa; aperture sinuosa, antice hiunte, columnella concavatá antice amplá, profunda; nudique livido-olivaceá, dorso custanoe-fusco maculato et nebulato; dentibus albidis.  

THE SOILED COWRY. Shell ovate, rather ventricose, contracted anteriorly, sides angulated, base concavely depressed, aperture sinuous, gaping anteriorly, anterior concavity of the columnella large, deep; livid olive colour throughout, back spotted and clouded with chestnut brown, teeth whitish.  

Testa junior.  
Testa junior cinerea-fusca, fascis olivaceo-fuscis quinis se-nisse picta, immaculata.  
Younger shell ashy brown, painted with five or six olive brown bands, unspotted.  

Cyprea stercoraria and rattus, Lamarck.  
Cyprea olivacea, gibba, and convoluta, Gmelin.  
Testa antiquata, Cyprea cantericola, Chemnitz.  
Testa junior, Cyprea fasciata, Chemnitz.  

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CYPREÆ.—PLATE V.

Hab. Persian Gulf; coast of Africa.

The sinuous character of the aperture, and the anterior concavity of the columella are curiously exaggerated in this species; its uniform olivaceous cast of colour is also peculiar. The younger shell has a kind of hump-like elevation on the back, and is of an ashy or greyish brown with five olive bands upon, and anterior to, the dorsal elevation, and one of more indistinct character round the spire.

Species 16. (Mus. Saul.)

CYPREÆ EXANTHEMA. Cypr. testá elongato-ovatá, crassi-usculá, extremilatibus subtruncatis, doro fulvo-fusco, maculis albidis rotundis, quorum nonnullis, praecipue ad latera, ocelatís, ornato; basi pallide fulva, dentibus castaneo-fuscis.

The measled Cowry. Shell elongately ovate, rather thick, extremities slightly truncated, back fulvous brown, ornamented with round white spots, some of which, especially at the sides, are ocellated, base pale fulvous, teeth chesnut brown.

Testa junior.

Testa junior fasciis ceruleo-plumbeis ornata.
Younger shell ornamented with blucish lead colour.

LINNÆUS, Syst. Nat. (12th edit.) p. 1172.

Testa junior, Cyprea zebra, Linnaeus.

Hab. West Indies; on the reefs.

The chief peculiarities of distinction between this and the Cyprea cervus, are its more elongated form, solid and heavier growth, more contracted aperture and, ocellated character of the spots.
Species 17. (Mus. Cuming.)

**Cyprea melanostoma.** Cypr. testa oblongo-ovata, extremiitatis prominentibus, utrinques subfusco-latis ; dorso cavo-ante cinoeco-fusciato, floccis niveis elecatonculis adipsus, extremitatis basique lacteis, dentibus columnellarium interstitis purpuro-nigricantibus.

The black-mouth Cowry. Shell oblong-ovate, extremities prominent, indented on both sides; back bluish or ashy brown, very faintly banded, sprinkled with slightly elevated snow-like flakes, base and extremities milk-white, interstices of the colunnellar teeth purple-black.


Hab. Red Sea.

It is not easy to conceive any two shells with such an apparent resemblance as the *Cyprea melanostoma*, and *ritellus*, capable of differing more essentially on examination. In the former, the extremities are prominently up-turned, the white flakes are of a bluish enameled-like tinge and slightly raised, the interstices between the columnellar teeth stained with purple-black, and there is no indication of those peculiar lateral sand-lines which constitute so striking a peculiarity in the latter. The younger shell of the *C. melanostoma* differs from the adult in being unspotted, in the base and extremities not being thickened, and in the absence of the purple-black colouring of the columnellar grooves.

Since Mr. Sowerby described this species in the Tankerville Catalogue, under Mr. Leathers' manuscript name of *Cyprea melanostoma*, it has been published by one or two authors under that of *Cyprea cameleopardalis*, from its having been thus originally named by one Mr. Perry; the writings of this person have, however, been censured a mass of buffoonery wholly unworthy of credit. So much has been already said on this subject by Mr. Sowerby, (Zoological Journal, vol. iv. p. 218.) that it only remains to state how fully I concur in the opinion there recorded. If every charlatan who sets himself up for a naturalist, with brush in one hand, and writing-tool in the other, is to be regarded as an authority on scientific matters; all the logical sign-boards in the kingdom might be quoted as figures of reference. For my own part, I consider that the "Cameleopard of Perry" should no more enter the nomenclature of zoology, than the "Red Lion of Brentford."

Specie 18. (Mus. Saul.)

**Cyprea mappa.** Cypr. testa oblongo-ovata, crassâ, extremiitatis subobtusis, deciduâ, dentibus numerosis, columnellaribus hie ilicis bifurcatis, dorso pallide violaceo-fuscescente, lineis rubido-fuscis hieroglyphicis longitutinibus confertis consmmuatâ pictâ; hinc dorsali autumno, peculiariter ramoso, lateribus violaceo-fusco-guttatis, basi violaceo, maculâ grandis violaceo-fuscesci sinistrorum ornatâ; dentibus viro di crocato-robiris.

The map Cowry. Shell oblong-ovate, thick, extremities rather obtuse, inclined downwards, teeth numerous, the columnellar teeth here and there bifurcated, back violet brown, elaborately painted with close-set reddish brown lines of hieroglyphical character; dorsal opening narrow, peculiarly branched, sides dotted with violet brown, base tinged with violet, ornamented with a large violet brown blotch on the left side; teeth bright saffron-red.

Variety β.

*Testa brevior, gibbosinaeuto, extremitatis basique sangui-

in-cristis, basi imbriculatâ, dentibus pallide inornatis.*

Shell shorter, more gibbons, extremities and base blood-red tinged, base unspotted, teeth pale flesh-colour.

*Testa junior.*

*Testa junior violaceofuscus, pallide umbilicata, lineis fulco-

fuscescentibus hieroglyphicis ad latas sinusoriarum picta.*

Younger shell clouded or mottled with pale violet brown, and painted on the left side with fulvous-brown hieroglyphical lines.


Hab. Island of Aman, Pacific Ocean (found on the reefs); Cuming.

There is a peculiarity in the progressive arrangement of the colouring matter of this species which I believe has not been hitherto noticed; namely, that there are two layers of ornamental pattern, one over the other.

The ornamental character with which the dorsal surface of the Cowries is mostly painted, appears to be the last effort in the formation of the shell. The previous infusions of colour rarely exhibit anything more than a dull confusion of waves, clouds, or bands; no ornamental device appears until the shell is on the eve of maturity;—the beauty of the architecture is reserved for the final decoration of the building. In the *Cyprea mappa*, we have an exception to this order of arrangement; a layer of pale hieroglyphical painting, greatly resembling, except in colour, that of the *Cyprea Arabica*, is deposited by the animal on the left side chiefly, while yet in a very immature state of growth, and on arriving at maturity, another and richer layer is superimposed upon the former, which in most specimens may be faintly seen beneath it.

The two varieties of this species above noted are very distinct, especially in regard to colour; one has a violet base, bright saffron-red teeth, and a large dark blotch upon the left base; the other is of a warm hue with blood-red tinged base and extremities, no spot, and teeth of

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faint flesh-colour. The curious ramifications of the dorsal line indicate corresponding jagged edges to the lobes of the mantle.

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**Species 19. (Mus. Saur.)**

**Cyprea carneola.** *Cypr. testa oblongo-ovata, erasae, extraeaithlo saublotinis, dorso carneolo, fasciae quadrernis, quinsequa saublitinis oroato, basi lateribusque pallide fictis, lateribus plus minusce arenaceae, dentibus interstitialibus vindexe violaceis.*

**The Carnelon Cowry.** Shell oblong-ovate, thick, extremities rather obtuse, back pale flesh-colour, ornamented with four or five bands of a deeper flesh tint, base and sides pale fulvous, sides more or less arenaceous, teeth mud interstices deep violet.

**Linnaeus, Syst. Nat.** (12th edit.) p. 1174.

*Hab. Isle of Amman, Pacific Ocean, (on the reefs); Cuming.*

This species is, perhaps, more variable in size than any other of the genus; there is no change of colour on the dorsal surface throughout its entire growth, but the arenaceous deposit round the sides, and the bright violet colouring of the teeth, both of which peculiarities are extremely characteristic, do not appear until the shell arrives at maturity.

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**Species 20. (Mus. Brit.)**

**Cyprea princeps.** *Cypr. testa orbiculo-ovata, tenuicula, ventricossilimae, dorso calde elevato, utrinque deinicii; apertura subangustat, sinuosa, dentibus numeroios, extraeaithlo subretusiis, basi plano-convexa; dorso lateolo, rosae-purpureascente, basea versus pallidior, tincto, medio charactenus rhia-coloris subdulcis profuso picto, maculae grandi saublitore, characteribus perpansis hieroglyphicis, utrinque obtinato; extraeaithlo lineae fasciae tribus irregularibus, quarta medio diis, fortissini, concentricis oratis, extraeaithlo postica striis concentricis pluralitis fuscescentibus subtilibus supra spire apicem occultat; lineis dorso subcentratis, rectis, lateribus gatiss curvatis et fasciis oratis, quarta nonnullis fortissinis, nonnullis indistinctis, dentibus nivosis, per coloumella pallide rufo-fuscescentibus.*

**The Prince Cowry.** Shell orbicularly ovate, rather thin, extremely ventricose, back considerably elevated, steep on each side, aperture rather narrow, sinuous, teeth numerous, extremities rather blunt, base flatly convex; back yellowish, tinged with rose-purple, haunter towards the base, profusely painted in the middle with waved rhubarb-colour characters, clouded on each side with a squarish spot of darker colour on which there are a few dark hieroglyphical characters; extremities concentrically adorned with three irregular brown lines, of which the middle is the strongest, the posterior extremity having several finer light brown concentric strike beyond the concealed spine; dorsal line straight, nearly central; sides ornamented with blue and brown spots of which some are strong and distinct, some clouded and indistinct; teeth snowy white, pale reddish brown across the columnella.

**Gray, Zoological Journal.** vol. 1. p. 75.

*Cyprea Valentina, Perry (hand recognitius).* *Hab. Persian Gulf.*

Having already spoken of the exceeding value and rarity of this remarkable shell, in my introductory observations to the genus, it only remains to add a more detailed history of its specific character.

The *Cyprea princeps* presents an association of character of which we find no approximation in any other species. It is of a rather light thinnish structure, swelling out on both sides with peculiar rotundity and rising in the middle to a lofty obtuse hump forming a steep incline anteriorly and posteriorly to the extremities. (I now regret not having decided upon a lateral view of this shell; as it is impossible to convey an accurate notion of this dorsal hump-like elevation by its position in the accompanying figure, which was selected in order to obtain a more correct representation of its makings than has hitherto appeared.) The general tone of colour is a pale yellow at the top, changing into a purple-pink wash at the sides, and thence into white at the base. The middle is painted with a close-set profusion of small waved rhubarb-yellow characters, with a central straight dorsal line, and a large rhombooidal dark clouded blotch on each side the dorsal acclivity, the left of which is the more diffused. Both of these blotches are painted with strong hieroglyphical marks of a very decided character. Around the extremities are three irregular concentric brown lines a little raised, or apparently so, the middle of which is the strongest; and on the posterior end of the shell are from six to seven concentric faint brown strie immediately above the three dark lines just spoken of. The teeth are rather small, numerous, and white, except on crossing the columnella, where they are reddish-brown. The sides are white, marked with small scattered spots of which the uppermost are brown, purtailing of the upper region of colour, and distinct, whilst those towards the base receive a blue-clouded appearance from the overflowing of the milk-white enamel of the base.

The only record we have of this shell's history is, that it was in "Old Humphrey's" collection under the name of "The Brindled Cowry of the Persian Gulf," and it remains in our national collection a curious exception to the favourite axiom of Linnaeus,—"Natura non facit saltum."
**CYPRÆA.**

**PLATE VII.**

Species 21. (Musc. Saul.)

**Cypræa spadicea.** Cypr. testa ovato-oblonga, subpyriformi, anteic antennatâ, aperturâ angustâ, dentibus cassiusculis, brevibus; dorso spadiceo, latero versus sustutato-fusco nebulato, guttis nigricantibus seriatim undato-margnato, lateribus roseo-aliis, obscurissimâ nigro-guttatis, dentibus basique aliis.

The chesnut-bay Cowry. Shell ovately oblong, somewhat pyriform, attenuated anteriorly, aperture narrow, teeth rather thick, short; back chesnut-bay, clouded towards the sides with burnt brown, edged with a waved row of confused blackish spots, sides pinkish white, showing very obscure dark spots, teeth and base white.


This species may be recognised by its peculiar burnt-brown colouring, which looks at first sight as if it had been artificially obtained by the action of acid. It is still one of great rarity, in fine condition, and I have not seen it in any other state than the adult. The dorsal area of burnt-brown clouding is edged on both sides by a row of confused blackish spots; and I am inclined to think, that during the intermediate state of growth the right side is entirely tessellated with these spots, regular in size, and nearly equidistant from each other, on a burnt-brown ground; a faint indication of this style of colouring may be seen through the white coating of the sides, which has, in consequence, a dull pinky appearance.

Species 22. (Fig. a and b. Mus. Cuming.)

**Cypræa leucostoma.** Cypr. testa depressa-ovalata, crusata, basi turgida, extrematibus posterioribus incurvatis, sinistrâ praecipue, aperturâ subangustâ, columellâ edentata, labro externo anteic obsolectissimâ dentata; dorso cinereo-fusco, maculâ castaneâ elongata, lineâ dorsoali profusa, margine recurvata, medio pileo; lateribus albidis, guttis numerosis cinereo-fuscis fulvo-nebulatis profuso aspersis, basi alba.

The white-mouth Cowry. Shell depressly subovate, thick, swollen at the base, posterior extremities thickened, especially the left, aperture rather narrow, columella destitute of teeth, outer lip very faintly toothed anteriorly; ashy brown, painted along the middle with an elongated chestnut blotch, through which runs a pale branched dorsal opening; sides whitish, profusely sprinkled with ash-brown fulvous-clouded spots, base white.


The Cypræa leucostoma has been very properly distinguished, by Mr. Gaskoin, from the Cypræa mus, on account of the following peculiarities. The base is white, the columella is entirely destitute of teeth, and only the faintest indication of teeth is to be found on the outer lip. The sides are more distinctly spotted, and the dorsal line has a peculiar branched character. Out of ten or a dozen examples of this shell which I have seen within the last few days, there is not the slightest modification of any of these features into those of the Cypræa mus. I have not seen the shell in an intermediate state of growth, but the columella mostly exhibits a portion of its colouring at that age;—a close series of concentric brown festoons upon a yellowish-white ground.

Species 23. (Musc. Brit.)

**Cypræa leucodon.** Cypr. testa subpyriformi-ovalata, dorso gibboso, elevato, basi convexa, aperturâ posticâ sinuosa, extrematibus prominentibus, leviter recurvatis, dentibus acutissimis fortibus, elongatis, in dentibus profunde subvalvis; dorso rugoso antit acutis, lateribus roseo-albis, guttis retinatis subamplissimis basis aspersis, basi pallide, striis subtilissimis transversâ notatae; dentibus laterales, hiata dorsoalii latissimis, ad dextrum latus approximante.

The white-tooth Cowry. Shell somewhat pyriformly ovate, back gibbous, elevated, base convex, aperture sinuous posteriorly, extremities prominent, slightly recurved, teeth strong on both sides, elongated, interstices deeply grooved; back reddish or yellowish-brown, sprinkled here and there with rather large round white spots, base paler, marked transversely with fine striae, teeth ivory white; dorsal hiatus rather broad, approaching the right side.


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This is another species of Cowry which our national collection can alone boast of possessing. The dorsal surface, of which I have given a more characteristic view than has yet been published, is of a yellowish reddish-brown, sprinkled with rather large round white spots, elongated, two and two, one refracting upon the other, like floating particles of oil. The base is thickly crossed with fine stria-like scratches, and the teeth are developed with remarkable intensity,—an exaggeration, as it were, of those of the Cyprea sulcidentata. The posterior margin of the shell exhibits on the right side a number of wart-like protuberances; and there is a pale concentric mark over each extremity.

Species 24. (Fig. a. and b. Mus. Saul.)

**Cyprea mus.** Cypr. testá ovalá, lateribus gibbosisincliis, basi plano-depressá, aperturá subsiiniosá, dentibus brevissimis, colimellariis plus minusc. obsoletis, medianis precipíné, extremitate posticé destíra prouincente; dorso interdum verrucis nonnullis posticé munílo, cinereo-vel olivaceo-fusco marmorato, latera versus precipíné, hiata dorso pallido, marginebus rigo-fuscescentibus, guttis defor-mibus aterrimento-fusco, interdum in viciíus aspersis, utrinque irregulariter pictis, macráli intéstis ad extremitatem podicánu, basi cinereo-fuscé, dentibus atro-fusceis, colimellá ustulato-fusco lineá.

The Mouse Cowry. Shell oval, sides rather gibbous, base rather flatly depressed, aperture a little sinuous, teeth very short, the colimellar teeth more or less obsolete, especially the middle, the right posterior extremity obsolete; back sometimes furnished posteriorly with a few wart-like protuberances, olive-brown, marbled, especially towards the side, dorsal hiatus pale, edges faint reddish brown, irregularly painted on both sides with very black-brown variously shaped spots, sometimes sprinkled in the vicinity, and an intense blotch of the same colour at the posterior end, base olive ash-brown, teeth black-brown, colimella stained with burnt brown.

Testa junior.

Testa junior ventricosissíma, paládite cinereo-fusce, longitudináliter pecíliáriter nudáta, macráli atro-fusce supra extremitátem posticáu.

Younger shell very ventricose, pale ash-brown, longitudinally peculiarly waved, with a black brown blotch above the posterior extremity.

**Linnaeus,** Syst. Nat. (12th edit.) p. 1176.

_hab._ — ?

It will be seen by the foregoing description how materially this shell varies from the *Cyprea leucostoma,* which might at first sight be easily mistaken for it. The base of the *Cyprea mus* is of an olive ash-brown colour without any appearance of spots, there are always a few short teeth in the colimella, and the outer teeth are very much more defined; there is also a great peculiarity in the general colouring of the shell which is distributed into waves like a rippled cloud.

Species 25. (Mus. Cuming.)

**Cyprea nitosa.** Cypr. testá oblongo-ovalá, crassissimá; extrémítatis brevísibus, subrecessá, dentibus colimellárisublíliabus, doro sulfo-fuscescentibus, floccis prácipue varia magnitudinis protrudente adsperso, dentibus basíque intesiíute-albá, hiata dorso latiínsulá, interdum confúsá rosá, ad latum dextrum approximante.

The Snow-flecked Cowry. Shell oblong-ovate, rather thick, extremities short, a little recurved, colimellar teeth fine; back pale fulvous-brown, promiscuously flecked with snow spots, and specks of various size, teeth and base yellowish white, dorsal hiatus rather wide, sometimes confusedly branched, approximating to the right side.

**Broderip,** Zool. Journal, v. 3. p. 84. pl. 4. f. 1.

*Cyprea dama,* Kiener (Perry hand recognitus.)

_hab._ — ?

An excellent species, and admirably figured in the Zoological Journal. From *Cyprea vitellus,* with which it might be confounded, it differs by its more oblong form, more irregular and confused assemblage of spots and specks, and entire absence of arenaceous striæ; the colimellar teeth are also longer and finer, and the colour a peculiar fulvous bay. From *Cyprea melanonostoma,* which is also destitute of arenaceous striæ, it differs materially in form, and the spots, which in that species are raised, are of a totally different colour and character.
CYPÆA.

Plate VIII.

Species 26. (Mus. Saul.)

CYPÆA PYRUM. Cypr. testa pyriformis-ovata, postice un-obilicata, extremitate postica dextra subproducta, dentibus brevibus, subcylindris; dorso falcato-recto, obscuri quadrifiisciato, castaneo-fusco copiosè marmorato, basi, extremitatibus lateribusque aranto-rufis, dentibus pallidis, interstitialibus subrosaceis, lateribus interdum castaneo-fuscis, fusco antoriatiforme obscurè punctatis.

The peak Cowry. Shell pyriformly ovate, posteriorly umbilicated, right posterior extremity somewhat produced, teeth short, rather faint; back fulvous yellow, obscurely four-banded, copiously marbled with rich chestnut brown; base, extremities, and sides deep orange-red, teeth pale, interspaces tinged with pink, sides sometimes chestnut brown, obscurely dotted with darker brown.

Testa junior.

Testa junior lanceolata, incarnato-fuscoquadri-fiisciato, lateribus subtilissimis marmoratis, basi luteo-aurantiata.

Younger shell yellowish, crossed with four broad flesh-brown bands, very finely marbled with yellowish brown, base milky orange.


This is the most northern species of Cyprea with such a brilliant display of colouring; the base and sides are of a deep orange-red, and the back is richly marbled with chestnut brown upon a yellowish four-banded ground. The teeth are somewhat faintly developed, and do not make their appearance until the shell is on the eve of maturity.

Species 27. (Fig. a. and b. Mus. Cuming.)

CYPÆA ARENOSA. Cypr. testa orbiculari-ovata, crassissimâ, subdepressâ, lateribus turgidis, apertura angusta, extremitatibus retusis, basi conoide, dentibus minutis, numerosis, columnellaribus subtilissimis elongatis, exteriorebus brevibus; dorso carneo-ciurea, fascis quaternis carneo-fusci ornatis, lateribus cinereo-fusci, super arenaceo-striatis, basi eburneâ.

The sandy Cowry. Shell orbicularly ovate, very thick, somewhat at depressed, sides swollen, aperture narrow, extremities blunted, base convex, teeth minute, numerous, the columnar very fine and elongated, the outer short; back blueish ash-colour, ornamented with four carnelion-brown bands, sides ash-brown, arenaceously striated above, base ivory-white.

Testa junior.

Testa junior oblongo-ovata, fuscescens, fascis quaternis carneo-cingulatis.

Young shell oblong-ovate, pale brown, encircled with four carnelion bands.


The plan of colouring in this species, and the two which follow, offers an exception to the general rule — in the dorsal surface of the shell receiving no new ornamental distribution of colour on arriving at maturity. The calcifying energies of the mantle at an advanced stage of growth are exclusively directed, and with more than usual force, to the thickening of the sides, accompanied in the present species by a dull brown deposit of colour, throwing up a number of fine arenaceous striae.

The banded layer of channeled in the Cyprea arenosa, ventriculus, and sublenticula, is therefore analogous to the intermediate banded layer of most Cowries, and to the dorso hiatus, of which the Cyprea talpa, carnea, and pulchra exhibit still more exaggerated modifications.

Species 28. (Mus. Cuming.)

CYPÆA VENTRICULUS. Cypr. testa ovata, crassissimâ, lateribus turgidis, subangulatis, extremitatibus retusis, basi subconcavo-depressâ; dorso carneo-ant livido-cinereâ, fascis quaternis carneo-fusci ornatis, lateribus nigri-ventriculato-castaneis, supra rubidis, infra fuscocinereis, striis subtilissimis copiosis creorientibus; basi albicante.

The ventriculus Cowry. Shell ovate, very thick, sides swollen, rather angulated, extremities blunted, base somewhat conceavely depressed; back blueish or livid ash, ornamented with four carnelion bands, sides blackish chestnut, red above, smoky white beneath, with a number of very fine striae rising; base whitish.

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Testa junior.

Testa junior pallide fulvescens, fascis quaternis carneolis cingulata.

Younger shell pale fulvous, encircled with four carneion bands.


Cyprea achatin, Schander MSS. Dillwyn.

Cyprea carneola, Martyn.

Hab. Island of Amau, Pacific Ocean (found on the reefs); Cuming.

Lamarck appears to have published this species under the above title before Dr. Solander's manuscript name was recorded by Dillwyn. The shell is a truly solid mass of enamel, the sides of which are profusely striated with a number of extremely fine scratch-like stria. The observations on the arrangement of the colours in the preceding species apply specially to this.

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Species 29. (Fig. a. and b. Mus. Saur.)

Cyprea sulcidentata. Cyp. testa ovata, crassissimâ, lateribus turgidis, basi convexâ, apertura angustâ, dentibus elongatis, valde prominentibus, interstis profundè excavatis; dorso carneo-cinereo, fascis quaternis, fuscescentibus subdistantibus ornato, lateribus granuloso-aureoceleis, basi fumeo-albicante.

The grooved-toothed Cowry. Shell ovate, very thick, sides swollen, convex at the base, aperture narrow, teeth elongated, interstices deeply excavated; base bluish ash-colour, ornamented with four rather distant pale brown bands, sides brown granulously arenaceous, base smoky-white.


Hab. South Seas.

The deeply excavated interstices of the teeth which are like those of the Cyprea lenecodon, amply distinguish this species from the Cyprea arenosa to which it so closely approximates in general appearance; the colours are of a duller brown, and the base is of a dull smoky white. Another peculiarity by which it differs from that species is, that the sandy border round the sides does not rise in stria but subsides in sediment-like granules.

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Species 30. (Mns. Brit.)

Cyprea guttata. Cyp. testa, oblongo-ovata, subpyriformis, lateribus margine recurvis, basi depressis, apertura sinuosa, dentibus parvis, in liris per basem continuatis, liris subirregularibus, rugiferis, hic iiic bifurcatis, supra marginem et ad latera exorientibus; columellâ levâ; dorso fulvescente-fuscus, guttis albis varie magnitudinis aspera, hiato dorsali laticulato, dentibus lirisque vivide crocato-rulis.

The spotted Cowry. Shell oblong-ovate, somewhat pyriform, sides recurved round the margin, base rather depressed, aperture sinuous, teeth small, continued across the base in ridges, ridges rather irregular, wrinkled, bifurcated here and there, passing over the margin and rising upon the sides; back yellowish-brown, sprinkled with white spots of various sizes, dorsal hiatus rather wide, teeth and ridges rich saffron-red.


This very rare and remarkable shell is the largest species of that division of the genus to which the Cyprea cossa and Lamarckii belong. Its chief peculiarity consists in the teeth extending across the base in bright saffron-red ridges, each of which passes over the edge and a little way up the side, terminating in a point; they have a somewhat irregular wrinkled appearance, and are here and there forked. The white spots on the back are extremely variable in size, and, as in the Cyprea vitellus, have the appearance of a miniature firmament of stars of different degrees of magnitude. The back of the shell is not, however, so highly enamelled as in that species, nor are the spots of the same round definite character.

I have seen three specimens of the Cyprea guttata, one, from which the accompanying figure is taken, in the British Museum, one in the Leyden Museum, and one in Mr. Norris's collection, at Preston. There are also two which I have not had the pleasure of seeing; one lately received from Amsterdam, in the collection of Mr. Demison of Liverpool, and another (I am told) in that of Mr. Johnston, at Berwick-on-Tweed. It appears to have been well-known to Martini, as it is figured by that author in the first volume of his "Conchylien Cabinet," Pl. 25, f. 252, and 253, published in 1769, under the title of "Argus flanus tennis ocellis lacteis."
CYPREÆA.

PLATE IX.

Species 31. (Mus. Cuming.)

CYPREÆA TURDUS. Cypr. testa depresso-ovata, turgida, basi subplantulata, externatibus productis, aperture latiuscula, antice dilatata, dentibus brevibus, subdistantibus; albida, dorso guttis punctisque fulcis inaequalibus profuso superso.

The thrush Cowrey. Shell depressely ovate, swollen, rather flattened at the base, extremities produced, aperture rather wide, dilated anteriorly, teeth short, somewhat distant; whitish, profusely sprinkled with unequal small fulvous spots and dots.

Lamarck, Anim. sans vert. (Deshayes’ edit.), vol. x. p. 520. Hab. —?

The dots of this species on the anterior extremity, which is slightly crenulated, assume a dash-like character.

Species 32. (Mus. Cuming.)

CYPREÆA LURIDA. Cypr. testa oblongo-ovata, externatibus plano-productis, basi subdepressa, dentibus brevibus; dorso cicero-ante cornuliscente-olivaceo, subobscuri trifasciato, externatibus croceo-incarnatis, maculae conspicuous nigricante utrinque tinctis, basi albicantes.

The lurid Cowrey. Shell oblong-ovate, extremities flatly produced, base a little depressed, teeth short; back ash or bluish olive, somewhat obscurely three-banded, extremities saffron-flesh colour, stained on each side with a conspicuous blackish blotch; base whitish.


There are two very distinct varieties of this well-known species, one a greenish-olive colour as figured, the other of a more bluish cast of colour, which is more elevated at the back, and more contracted at the extremities.

Species 33. (Mus. Gaskoin.)

CYPREÆA LYNX. Cypr. testa oblongo-ovata, cassia, externatibus retvisis, apertura subangustate, dentibus interdubibus per colunmellam elongatis; dorso albido, fulvo et corneascens profuso nebulo et guttato, maculis nigerrimo-fuscis inaequalibus hic illie interspersis, hiatu dorso alido alto livori, lateralibus dentibus basique albicantis, dentibus interdubibus conspicuis surgingo-reflis.

The lynx Cowrey. Shell oblong-ovate, thick, extremities blunt, aperture rather narrow, inner teeth extended across the columnella; back whitish, profusely spotted and clouded with fulvous brown and blue, interspersed here and there with unequal dark blackish-brown spots, dorsal hiatus narrow, linear, sides teeth and base whitish, interstices between the teeth bright blood-red.

Testa junior.

Testa junior alba, fulvo profuso guttato.

Younger shell white, profusely spotted with yellowish brown.


The first coat of colouring matter, in which there is no dorsal opening, is one of pale fulvous brown spots on a white ground, the second is bluish and of a more clouded character, and the third consists of a scattered deposite of blackish-brown spots, round, but of very unequal size. The teeth are mostly developed simultaneously with the first deposite of colour, and the bright red colouring of the interstices between the teeth begins to make its appearance at the same time.

Species 34. (Mus. Saul.)

CYPREÆA PULCHRA. Cypr. testa cylindrico-oblunga, externatibus subcontractis, apertura rectisculata, augusta; dentibus parvis, numerosis, lineatis, subobsoletis, colunmellâ levigate, cornuliscente subangustâ, lateribus basique rotundatis; dorso olivaceo, subobscuri trifasciato, externatibus maculae conspicue nigerrimo-fuscis utrinque tinctis, basi pallidissimâ olivaceo-rubridis, dentibus lacco-fusciscensibus, interioribus medianis interdubis bifasciatis, per baseâ partius phaeo-libus.

The beautiful Cowrey. Shell cylindrically oblong, extremities a little contracted, aperture rather straight, narrow, teeth small, numerous, linear, somewhat obsolete, columnella smooth, with a rather large concavity, sides and base rounded; back olive, rather obscurely three-banded, extremities stained on each

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side with a rich blackish-brown blotch, base with a warm ruddy olive tinge, teeth lake-brown, inner middle teeth sometimes bifurcated, flowing partially over the base.

Hab. Red Sea.

Although there is so close an approximation between the painting of the back of this species and the Cypraea lurida, they are eminently distinct at the base. The teeth of the Cypraea pulchra are of a curious half-obsolete character, and peculiarly coloured, and the middle of the inner row are extended in lines a little way over the base, which just at that point has a slight concave depression.

The name pulchella, originally given to this species by Mr. Gray, at page 143 of the 'Zoological Journal,' vol. i. having been pre-occupied by Mr. Swainson, it was altered to pulchra at page 379 of the same volume.

**Species 35.** (Mus. Cuming.)  
Cypraea eburna. _Cypr. testa depresso-ovata, turgida, antice contracta, marginibus subobscuro foveolatis, apertura latianscula, antice dilatata, dentibus brevisibus, foribus, subdistantibus; extus undique eburnea, intus fulvo-fuscescente.

The ivory Cowrey. Shell depressely ovate, swollen, contracted anteriorly, margins somewhat obscurely pitted, aperture rather wide, dilated anteriorly, teeth short; strong, rather distant; outside ivory-white, inside fulvous brown.

Hab. Philippine Islands; Cuming.

This shell has so much the form of the Cypraea Lamarckii that it has been regarded as a white variety of that species. It is, however, constantly distinct, a pure highly polished ivory white shell, fulvous brown within.
CYPREA.

PLATE X.

Species 36. (Mus. Cuming.)

CYPREA MILIARIS. Cypr. testá oblongo-ovatá, antice attenuatá, extrematibus productis, obsoletis, lateribus foveolatibus; dorso citrino-flavescence, coccis albísis profuse asperso, lateribus basíscis atílis.

THE MILLET COWREY. Shell oblong-ovate, attenuated anteriorly, extremities produced, a little reflexed, sides pitted; back citron-yellow, profusely sprinkled with white eyes of various sizes, sides and base white.


Hab. Japan (under stones); Dr. Siebold.

Notwithstanding what has been said of this species by M. Deshayes, I am inclined to think with M. Kiener that it is really the C. miliaris of Gmelin; and that the following, universally regarded by collectors as C. Lamarckii, is distinct from it.

Species 37. (Mus. Gaskoin.)

CYPREA LAMARCKII. Cypr. testá ovatá, venticoso, extrematibus subobtusis-productis, reflexis, utrinque foveolatibus; dentibus brevibus, fortibus, subdistantibus; dorso aurantio-flavescence, coccis albísis, quorum nonnullis punctatis, profuse asperso, lateribus punctatis, extrematibus lineis aurantio-astacis, notatis, basí albi.

Lamarck’s Cowrey. Shell ovate, venticose, extremities somewhat obliquely produced, reflected, pitted on both sides; teeth short, strong, rather distant; back orange-yellow, profusely sprinkled with white eyes, some of which are pitted, sides marked with orange-brown spots, extremities with lines, base white.


Hab. Mozambique (under stones); W. V. Hemmah.

The growth of this species, in which the former is included by Mr. Gray as a variety, seems to differ constantly in being less obese, whilst the extremities are more produced and the outer teeth more in number. The difference in the colouring is most conspicuous; the sides and extremities are dashed and dotted with orange-brown, whilst the ground colour of the back is darker, and the eyes more or less pitted.

Species 38. (Mus. Cuming.)

CYPREA CRUENTA. Cypr. testá oblongo-ovatá, extrematibus subrectis, lateribus plus unimac incrassatis, dentibus fortibus, sublongatis; albída, dorso intescente, fusco marmoreato, lateribus guttábus inaequalibus purpureo-laccis ornatis, dentibus interstitiis crocato-viridis.

THE BLOOD-SPOT COWREY. Shell oblong-ovate, extremities rather blunt, sides more or less thickened, teeth strong, rather elongated; whitish, back marbled with yellowish brown, sides ornamented with unequal purple-lake spots, interstices between the teeth saffron-scarlet.

Gmelin, Syst. Nat. p. 3420 (?).

CYPREA variolatína, Lamarck.

Hab. — ?

Although M. Deshayes urges the propriety of following Lamarck’s name of this species on account of its doubtful identity with the description published by Gmelin, he does not show that description to refer to anything else. Mr. Dillwyn, Gray, Sowerby and all who have written upon the genus in this country have united in referring the species under consideration to the Cyprea cruenta of Gmelin.

Species 39. (Fig. a. and b. Mus. Saul. Fig. c. Mus. Cuming.)

CYPREA onyx. Cypr. testá octato-pyriformi, posticé umbilicatá, aperturá latissimá; dorso albicante, zonis binis obscuris, extrematibus, basí, lateribusque aternimis, aurantio-fusco supra margino, dentibus aternimis.

THE ONYX COWREY. Shell ovately pyriform, umbilicated posteriorly, aperture rather wide; back whitish, with two obscure zones, extremities base and sides jet black, edged above with orange-brown, teeth jet black.

Variety β (Fig. 39 a.)

Testa unique castaneo-fusca, extrematibus basí lateribusque saturatioribus, dentibus crocato-rubris.

Shell chestnut-brown throughout; extremities, base, and sides the deeper colour, teeth saffron red.

Variety γ. (Fig. 39 b.)

Testa unique aurantio-inte, extrematibus basí lateribusque saturatioribus.

Shell of an orange cream-colour throughout; extremities, base, and sides the darker.

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*Cyprea aulosta*, Lamarck.

*Hab.* San Diego, California.

This species presents three remarkably distinct varieties all of which, represented in the accompanying plate, are well known to collectors.

Species 40. (Mus. Saul.)

**Cyprea Sowerbyi.** *Cypr. testa oblongo-ovata, depressisculata, subunilicata, dorso ceruleanscula, obscurissimae quadrifasciato, maculis inequalibus castaneo-fuscis creberrimis et confusi picta, extremittatis basi lateribusque aurantiocrufiscis, lateruml et extremittatibus nigro-punctatibus dentibus albis.*

Sowerby's Cowry. Shell oblong-ovate, rather depressed, slightly umbilicated, back bluish, very obscurely four-banded, very closely and confusedly painted with unequally chestnut-brown spots, extremities, base, and sides orange-tinged brown, sides and extremities dotted with black, teeth Whitish.

**Kiener, Ikon. coq. viv.** p. 38. pl. 7. f. 3.

*Cyprea zonata*, Gray, (not of Chemnitz).

Eadem, *Cyprea ferrugiosa*, Kiener.

*Hab.* Mouth of the Gambia, Africa.

The *Cyprea Sowerbyi* has been confounded with another very distinct species, *Cyprea zonata* (for which see Plate XIX. Fig. 58.), and great confusion has resulted from the different interpretation put upon a very obscure figure published under that name by Chemnitz (Conch. Cab. vol. x. pl. 145. f. 1342.), and copied in an absurdly embellished style into Wood's 'Index Testaceologicus'.

After a careful examination of figures, and the comparison of an extensive series of specimens I am inclined to think that the shell above described, and of which the accompanying figure is a rich characteristic example, was correctly introduced for the first time by Mr. Gray in the Zoological Journal, vol. iv. pl. 7. f. 8, as a new shell, but the name intended to distinguish it, *maculata*, was not employed, because the author subsequently determined to refer it to the *Cyprea zonata* of Chemnitz; and, curious enough, the word *maculata* was at about the same period (September 1824) used by Mr. Barnes in the 'Ann. Lyc. Nat. Hist. New York,' in reference to a shell, which, though only figured in outline, is clearly a *C. reticulata*. We have, however, another extremely variable species of a shorter and more pyriform shape (vide *Cyprea zonata*, pl. 13. f. 58.), of which the figure above alluded to in Chemnitz is, in my opinion, either an uncoated, or immature specimen.

The following history may assist in the determination of these species, and, I wish I might say, put an end to the confusion attending them.

In the year 1788, before the different phases of colour which the Cowries exhibit at different periods of growth were fully understood, Chemnitz (Conch. Cab. vol. x. pl. 145. f. 1342.), published the figure of an African species in an incomplete state, showing the zones of lunar spots (''zonis maculis lunaris'') characteristic of an intermediate stage of growth. Lamarck in 1822 confirmed the propriety of regarding this shell as new, by the discovery of an adult specimen of the same, not otherwise described (''nais parmi celles du Muséum se trouve un inividu complet''); but his testimony not being accompanied by any figure it is difficult to say with which of the two species (Sp. 49, or Sp. 48, of the present monograph), he had in his own mind identified it. Mr. Gray in 1824 published a figure of the former of these (and I think correctly), as a new species, with a name which he abandoned in the text, referring it to Chemnitz's *Cyprea zonata*; and subsequently to that, as if desirous of returning to the opinion which I now hope to maintain, inserted a note to the following effect; "The reference to Chemnitz is doubtful," (Zool. Journ. vol. iv. p. 81.), Mr. Sowerby follows Mr. Gray in referring this species to the *C. zonata* without allusion to the doubt expressed in the note above alluded to; and no figure appeared of the true *Cyprea zonata* (such at least as I hold to be the true one), until M. Kiener figured both species under the same name (Ikon. Coq. viv. pl. 7. f. 3, and pl. 48. f. 1.) After the publication of these figures he appears to have discovered their specific difference, and in the text distinguished that under consideration by the new name of *C. Sowerbyi*. Unfortunately, however, M. Kiener did not stop here; for an inferior example of the very same shell is reproduced in a subsequent plate as a new species under the title of *Cyprea ferrugiosa*.

Had it not been for the misapplication of the word *maculata* by Barnes, I should certainly have adopted it, as having been proposed, though not adopted by Mr. Gray.
CYPÆA.

PLATE XI.

Species 41. (Mus. Cuming.)

CYPÆA REEVEI. Cypr. testâ ovate, teni, ventricó, spire apice subprominaente, dentibus parvis tumidis numero- ris, per columnam, praecipue conduplicata antica, subconspicua; dorso fuscicante- ant lavendulo-fusco, obscure quadrifasciato, base albidâ, spire apice extenuatilisosa roseis.

REEVE's Cowrey. Shell ovate, thin, ventricose, apex of the spire rather prominent, teeth small, thin, numerous, rather conspicuous across the columella; back yellowish- or lavender-brown, obscurely four-banded, base whitish, extremities and apex of the spire pink.

Gray; Sowerby, Cat. Cypreae, Conch. Illus. no. 15. f. 52. Hob. Garden Island, mouth of the Swan River.

The back of this shell in a fine state of preservation is of a bluish lavender colour; and in this and the delicate pink colouring of the extremities the species is peculiarly characteristic.

Species 42. (Mus. Saul.)

CYPÆA PULCHELLA. Cypr. testâ elegantior pyriformi, anteriori contracta et producta, dentibus elongatis, interioribus in liris basen percurrentibus; albidâ, dorso fulvo minutilissimâ punctato, maculis fulvis semilunariis bifasciato, lateribus guttis circularibus nigricante-fuscis irregulariter aspersis, dentibus lirisque rubidis.

THE PRETTY Cowrey. Shell elegantly pear-shaped, anteriorly contracted and produced, teeth elongated, the inner teeth running over the base in ridges; whitish, back minutely dotted with fulvous specks, with two bands of semilunar blotches, sides irregularly sprinkled with round blackish brown spots, teeth and ridges dark red.

SwAINSOx, Exotic Conch. p. 25. pl. 35. Hob. China.

The colouring of the back of this species is exceedingly variable, being sometimes banded with semilunar spots as in the specimen here figured, sometimes ornamented with a large irregular splash of chesnut-brown. It is remarkable for the novel and characteristic extension of the teeth.

Species 43. (Mus. Saul.)

CYPÆA EROSA. Cypr. testâ ovata, plus minuscæ depresso-

plana, lateribus incrassatis, margine irregulariter reflexo, foecolato et crenato, dentibus fortibus, exterioribus basen interdum percurrentibus; dorso citrinofulvo, punctis variis aliis profusâ notato, guttis fuscicantis, dentibus oblongis, maculâ quadratâ fuso-nigricante in medio incisa, costaseco lineatis et punctatis.

THE ERODED Cowrey. Shell ovate, more or less depressively flattened, sides thickened, edge reflected, pitted and eroded, teeth strong, outer teeth sometimes running across the base; back citron-fulvous, profusely marked with minute white specks, and sprinkled with obscure brownish ones, sides white, stained in the middle with a square brownish black spot linated and dotted with chesnut brown.


An abundant and extremely variable species of which the specimen here figured may be regarded as the type.

Species 44. (Mus. Cuming.)

CYPÆA CAPUT-SERPENTIS. Cypr. testâ subquadrato-ovata, depresso-planâ, crassa, solidâ, dorso subacuminato, dentibus conspicuis, subelongatis; nigricante-fusca, dorso guttis niveis circularibus inequivalentibus asperso, exterioribus ulbicentibus, dentibus et apertura fuscâ flavo-albida.

THE SNAKE'S-HEAD Cowrey. Shell somewhat squarely ovate, depressively flat, thick, solid, back a little acuminate, teeth conspicuous, rather elongated; blackish brown, back sprinkled with unequal round snow-white specks, extremities Whitish, teeth and aperture smoky-white.

Testa junior.

Testa junior cinero-caerulescens fuscâ nigricante fusce latianscula centra.

Younger shell ashy-blue, with a single rather broad central band.


I take especial notice of the younger state of this well-known species on account of the great difference in its colour and appearance.

December 1845.
Species 45. (Mus. Cuming.)

**Cyprea scurra.** *Cypr. testa cylindraceo-oblungā, extremītās decūlis, subrectās, aperturā augustā, dentībus tenuibus numerōsis, columna concava et subamplā; dorso cinereo-verālente, obscurā quadriferumā, reticulā fasciā gracili latiusculā obtecto, hiattā lineāri, laterībus basiā fuscāce fuscāce confusē et creberrimē picto, laterībus fulvo-albidās, guttīs fumeo-nigricantibus aspersās, dentībus fusco-rubidīs.*

**The Jester Cowrey.** Shell cylindrically oblong, extremities steep, rather blunt, aperture narrow, teeth fine, numerous, concavity of the columella rather large; back ashly blue, obscurely four-banded, covered over with rather open slender net-work of brown, with a linear hiatus, sides and base yellowish-brown, sprinkled with smoky black spots, teeth brownish red.


Eadem. *Cyprea Indica* Gmelin.

Hab. Isle of Annaa, Pacific Ocean (on the reefs); Cuming.

Distinguished from any varieties of the *C. Arabica*, to which it is in most respects allied, by its straight cylindrical form.

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Species 46. (Mus. Saul.)

**Cyprea caurica.** *Cypr. testā ovātā, vel oblongo-ovātā, plus minusve depressā, laterībus planumque incassātis, dentībus fortibus, basem strīnque percurrentibus; dorso albido, punctis minutissimis fuscāce fuscāce confusē et creberrimē picto, laterībus fulvo-albidīs, guttīs nigermis conspicuīs hic illic ornatis, basi subaurantio-fulvīs, dentībus albīdīs.*

**The thick-edged Cowrey.** Shell ovate, or oblong-ovate, more or less depressed, sides generally thickened, teeth strong, running partially over the base on each side; back whitish, confusedly and very closely painted with minute yellowish brown specks, sides fulvous white ornamented here and there with very dark conspicuous spots, base orange-tinged fulvous, teeth whitish.


Hab. Eastern Seas.

This species is most abundant, varying from long and rounded forms with thin sides, to short and depressed with thickened sides.
The SWOLLEN Cowrey. Shell somewhat pyriform, thin, inflated, aperture rather broad, teeth fine minute, inner teeth almost obsolete; back bluish, ornamented with two light brown zones, yellowish, confusedly painted with yellowish-brown dashes, sides and extremities fulvous orange, base whitish.


Cyprea achateidea, Sowerby.

Cyprea Grayi, Kiener.

Hab. Sicily (found under stones); Capt. Mott.

A species comparatively new to collectors of recent shells, which M. Deshayes first identified with one that has been known for some time in a fossil state. It is of light inflated growth, with very fine teeth, the inner row of which is almost obsolete, the sides and extremities are fulvous orange, and the back is profusely splashed with yellowish brown.

Species 47. (Mus. Cuming.)

Cyprea physis. Cypr. testa subpyriformis, tenui, inflata, apertura latericulata, dentibus lenticibus minutis, interioribus ferè obsoletis; dorso corneoluto-albo maculis undatis obscurè trifasciato, punctis minutis flavocinctis dubique lentiginoso, extrematibus nigricante-fuscos, lateribus guttis nigricante-fuscos asperosis, basi albidd.

THE FRECKLED Cowrey. Shell oblong-ovate, extremities a little produced, teeth large, somewhat distant; back blueish-white, with three obscure bands of waved blotches, streaked over with small light brown specks; extremities blackish-brown, sides sprinkled with blackish brown spots; base whitish.


Hab. Ceylon.

Although a shell of great rarity there are several specimens in our different collections; the one here figured from the cabinet of J. S. Gaskoin, Esq. which is by far the finest I have seen, is already well known to the public by the figures of Mr. Sowerby and M. Kiener.

Species 48. (Mus. Saul.)

Cyprea subviridis. Cypr. testa ovata, turgida, subpyriformis, extrematibus leviter productis, dentibus brevibus, fortibus, subdistantibus, interioribus posterioribus plus minuscule obsolatis; dorso subviridibus obscurè latifasciato, punctis pallidis minutissimis lentiginoso, maculâ perlampid costae-fuscâ pictâ, dentibus basi lateribusque subviridescence-albis, extrematibus incarnato-fuscescentibus.

THE GREENISH Cowrey. Shell ovate, turgid, somewhat pyriform, extremities slightly produced, teeth short, strong, rather distant, the inner posterior teeth more or less obsolete; back greenish, obscurely broadly banded, painted with a very large chestnut-brown blotch, and flecked with minute pale specks; teeth base and sides greenish white, extremities flesh-tinted brown.

Reeve, (mendâ typographiâ Lake), Prozool. Soc., 1835.

Cyprea erana var., Sowerby, Conch. Illus.

Hab. Duplech’s Island, North west coast of Australia (found under stones at low water); Dring R. N.

This is the first shell I ever ventured, as a youth, to describe; like most collectors my attention was first attracted by the Cowries, and the specimen which struck me as being specifically distinct from any other that I had seen is now in the collection of Mr. Cuming. The species has been entirely disregarded by naturalists; one noticing it as a variety of C. errones, another omitting mention of it altogether. M. Kiener has certainly adopted the species, but as his figure is copied from Mr. Sowerby’s, and his comparison with the C. physis is one of figures only, it cannot be estimated as a record of opinion.

Several specimens of the Cyprea subviridis have fortunately arrived from the locality above mentioned within the last twelvemonth, and the species is now universally esteemed by collectors in this country as one totally distinct from any hitherto known.

Species 49. (Mus. Gaskoin.)

Cyprea lentiginosa. Cypr. testa oblongo-ovata, extrematibus subproductis, dentibus magnis, subdistantibus; dorso corneolucento-albo maculis undatis obscurè trifasciato, punctis minutis flavocinctis dubique lentiginoso, extrematibus nigricante-fuscos, lateribus guttis nigricante-fuscis asperosis, basi albidd.

Species 50. (Mus. Saul.)

Cyprea Walkeri. Cypr. testa oblongo-ovata, depressiva, flavo-nigeris, extrematibus subtubatis, dentibus paucis, lenticulis, numerosis, punctis interioribus; dorso corneolucento-albo, trifasciato, fascisi latissimiuis, centrali nigris, injunieare undato-nacentatis, punctis minutissimis flavis-fuscis undato lentiginoso; lateribus subflavis, guttis nigro-fuscis sparvis notatis, dentibus interstitialibus basique purpureo-violaceis.

Walker’s Cowrey. Shell oblong-ovate, rather depressed, extremities somewhat blunt, teeth small, fine,

December 1845.
numerous, especially the inner; back blueish-white, three-banded, bands unusually broad, brown, central band darker than the others, marked in the younger shell with waved spots, freckled throughout with minute yellowish-brown specks; sides yellowish, marked here and there with round blackish brown spots; base and interstices between the teeth purple-violet.

Gray, Sowerby Conch. Illus. Cat. Cypreaeae, no. 70. f. 22.*

Hab. New Holland.

An extremely well-defined species named by Mr. Gray after a zealous and intelligent collector of shells, now no more, to whom I am indebted with many kind remembrances for my first introduction to conchological pursuits.

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Species 51. (Mus. Cuming.)

Cypraea isabella. Cypr. testa cylindraceo-oblonga, extremitates decliibas, retusas, apertura angustia, dentibus tenuesissimis numerosis, dorso cingere aut cingere-fulvo, obscuris trifasciato, punctis lineisque interruptis atris, longitudinaliter plus minusve notatis; extremitates crocato-rubris, basi nixae.

The fawn-coloured Cowrey. Shell cylindrically oblong, extremities steep, blunt, aperture narrow, teeth very fine and numerous; back ashy or ashy fulvous, obscurely three-banded, more or less marked longitudinally with inky black dots and dashes, extremities saffron-red, base snowy white.


Fadum, Cypraea controversa, Gray.

Hab. Mauritius.

A well-known species of the same oblong cylindrical form as the C. scabra.

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Species 52. (Mus. Gaskoin.)

Cypraea pyriformis. Cypr. testa pyriformi, tenuicellata, subsubulata, extremitatis productis, praecipue antica, dentibus subirregulares praecipue interiores, basi anti- tica depressissimis; dorso subchilid, fasciis centrali interruptis fusciscente, punctis minutissimis fulvo-fuscescentibus antilique lentiginoso, lateribus albidis, guttae fulvo-fuscescentes notatim, basi albidis, dentibus latericulli rubidis.

The pear-shaped Cowrey. Shell pear-shaped, rather thin, a little umbilicated, extremities produced, the anterior especially, teeth somewhat irregular, particularly the interior, base rather depressed anteriorly; back greenish, with a central interrupted pale brown band, freckled throughout with very minute fulvous brown dots, sides whitish, marked with fulvous brown spots, base white, inner teeth red.


Hab. Ceylon.

Having two magnificent specimens of this very rare species before me from the collections of Mr. Gaskoin and Miss Saul, I am enabled to fill up the characters that were unwillingly omitted by Mr. Gray at the time of its introduction. The back is of a delicate sea-green, freckled with very minute yellowish brown specks, having a broad interrupted band of the same colour across the centre. The teeth are deep red, and of the same remarkable character, on a small scale, as those of the C. punctella. M. Kiener's figure gives a most inadequate idea of the species, being a wretched copy of a rather indifferent figure in Sowerby's 'Conchological Illustrations'.

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Species 53. (Mus. Saul.)

Cypraea tessellata. Cypr. testa crassissima, solidissima, subquadrate-ovata, lateribus incurvis, dorso paulum acuminato, extremitatis retusis, antica callositate sub-obscurescens, apertura angustia, dentibus parvis, gracilibus; dorso ferruginoso-cingere, trifasciato, fasciis latericellis, lateribus maculis quadratis fuscis et albis tessellatis, maculis dubios superrioribus ad utramque lateris vidini nigerrima-testaneis, callositate alba, basi fusco alboque tessellata variegata, dentibus aurantiofuscescentibus.

The tessellated Cowrey. Shell very thick and solid, somewhat squarely ovate, sides thickened, back a little acuminate, extremities blunt, the anterior furnished with a somewhat obscure callosity, aperture narrow, teeth small, slender, back ferruginous ash-colour, three-banded, bands very broad, sides tessellated with square brown and white spots, the two upper spots on both sides very dark bright chestnut, callosity white, base tessellately variegated with brown and white, teeth orange-brown.


Hab. New Zealand.

This species, like the preceding, has been but imperfectly described hitherto for want of a specimen in adequate condition. The shell here figured from the collection of Miss Saul is in the finest state imaginable, and quite a gem to look upon.
CYPÆA.

PLATE XIII.

Species 54. (Mus. Saul.)

CYPÆA pallida. Cypr. testâ ovata, subglobiformi, turgescente ; testâ subglobosa, laterâ subovata ; dorso viridescente-unicolor ; umbrâ fulvo-fusco minutissimâ lentiginosâ, laterâbus fulvo-fusco sparsâ. guttâtissimâ, basi albiceante.

The pale Cowrey. Shell ovate, somewhat pear-shaped, swollen, teeth rather large; back greenish straw-colour, very minutely freckled with fulvous brown, sides spotted here and there with brown, base whitish.


Hab. ?

The C. pallida approximates rather closely to the C. punctulata, but is perfectly distinct in examination; it is of a more pear-shaped form, and less thickened, the tone of colour always paler, whilst the inner teeth do not extend across the columella, which wants the anterior concavity.

Species 55. (Mus. Saul.)

CYPÆA xanthodon. Cypr. testâ oblongo-ovata, antice attenuata, basi subdepressa, extremâlibus lecter productis, laterâbus subincrcrassatis, dentibus brevibus, interrioribus superioribus subobsoletis, columellâ antice media sulcata ; dorso ceralo-cirridescente, obscurâ trifasciata, punctis minutâs fulvo-oliveâcis minutique lentiginosâ, laterâbus flaveoantiquis, guttis nigerrimis-castaneis conspicuâs ornatâs, dentibus basiâ fulvo-flaveo-antiquis.

The yellow-tooth Cowrey. Shell oblong-ovate, attenuated anteriorly, base a little depressed, extremities slightly produced, sides rather thickened, teeth short, the inner upper teeth somewhat obsolete, columella grooved down the middle anteriorly; back bluish green, obscurely three-hulled, freckled throughout with minute fulvous orange specks, sides yellowish, ornamented with conspicuous blackish-brown spots, teeth and base fulvous yellow.

Gray; Sowerby, Conch. Illus. Cat. Cypreaeae no. 388. f. 18.

Hab. ?

Through the kindness of Miss Saul, I am enabled to figure the only adult specimen of this Cowrey that has been seen in fine condition; Mr. Gaskoin has a well-preserved specimen in an intermediate stage of growth, and besides these I have seen none but what are decorticated.

Species 56. (Mus. Cuming.)

CYPÆA ERRONEA. Cypr. testâ oblongo-ovata, dentibus brevibus ; dorso cerealo-cirridescente, punctis fulvis minutissimis lentiginosis, umbrâ castaneâ grandi centrali plicinaque pecto, laterâbus basiâ flavo-antiquis immutabilis.

The Erroneus Cowrey. Shell oblong-oval, teeth short; back bluish green, freckled with very minute fulvous specks, generally painted with a large chestnut blotch in the centre.

Linneus, Syst. Nat. (10th edit.), p. 723.

Cyprea ovata subhis, Gmelin.

Cyprea olivacea. Lamarck.

Hab. Eastern Seas.

This, unlike most other species of the genus, is not spotted at the sides.

Species 57. (Mus. Cuming.)

CYPÆA PICTA. Cypr. testâ oblongo-ovata, antice attenuata, laterâbus subangulatis, basi depressa-planâ, dentibus brevibus ; dorso cerealo, fasciâ centrali subfuscâ, purpureo-fusco nudique peculiari nebulato-picto, laterâbus basiâ flavo-antiquis, guttis conspicuâs nigricantibus ornatâs, basi flavo-antiquâs.

The painted Cowrey. Shell oblong-ovate, attenuated anteriorly, sides somewhat angulated, base depressely flattened, teeth short; back blue, with a rather obscure central band, painted throughout with peculiarly clouded purple-brown, with a central dorsal opening, sides smoky brown, ornamented with conspicuous blackish spots, base smoky white.


Hab. Mouth of the Gambia.

Distinguished from the following species, to which it is the next allied, by its reddish-purple tinged painting and dorsal opening, by its angular form, the base being more depressed, and the back more steeply elevated.

Species 58. (Mus. Saul.)

CYPÆA ZONATA. Cypr. testâ ovata, laterâbus basiâ flavo-antiquis, dentibus fortilibus, subangulatis ; dorso cerealo...
ant viridescente, nuculis semilunarius undatis plus minusque distinctis mediozonato, fulvo-fusco sparsis un- dignique undulato-pictis, lateribus basique flaveo-fuscis, nig- griquitatis.

The zoned Cowrey. Shell oblong-ovate, sides and base convex, teeth strong, a little elongated; back blueish or greenish, zoned across the middle with more or less distinct waved semilunar spots, sparingly painted throughout with clouded fulvous brown, sides and base dark smoky brown, spotted with black.

Chemnitz, Conch. Cab. vol. x. pl. 145. f. 1342.
Eadem, Cypraea nebulosa, Kiener.

Hab. Mouth of the Gambia.

I quite agree with M. Kiener in regarding this shell as the Cypraea zonata of Chemnitz, for a full history of which I refer to my observations on the Cypraea Sowerbyi. The Cypraea nebulosa of M. Kiener is, however, an obscure variation of colouring, which may be easily identified with the typical examples by a careful comparison.

Species 59. (Mus. Soul.)

Cypraea nigro-punctata. Cypr. testá oblongo-ovata, ante- tice attenuata et contracta, lateribus marginatis et cum externitatis productis, dentibus interditis subpro- funde unclesis; dorso cernentes, fulvo pallide lenti- giaos, lateribus creberrinie nigripunctatis, basi flavici- nate.

The black-dotted Cowrey. Shell oblong-ovate, attenuated and contracted anteriorly, sides marginated and produced with the extremities, interstices between the teeth rather deeply grooved; back blueish, freckled with pale fulvous brown, sides very closely dotted with black, base yellowish.

Eadem, Cypraea iriana, Kiener.

Hab. Galapagos Islands, Pacific Ocean (found under stones); Cuming.

M. Kiener has been singularly unfortunate in his lucubra- tions of this and two other allied species; an uncoated example of that under consideration is figured at Pl. II. with its proper name Cypraea nigro-punctata, and a fine specimen with its last coating of enamel is introduced at Plate LVI., as a new species, under the name of Cypraea iriana. The Cypraea Sowerbyi is unconsciously reproduced at Plate LVI. under that of Cypraea ferrugina. A variety of Cypraea zonata is introduced at Pl. XXXII. as a new speci- 

cies under the name of Cypraea nebulosa; and to complete the category it may be added that his C. Boieiini is a well-known variety of C. gongrenosa, his C. fabula one of C. felina, his C. Grayi the C. physis, already named C. achati- doea by Sowerby, and his C. rotunda the C. quadripunctata.

Species 60. (Mus. Cuming.)

Cypraea Arabicula. Cypr. testá ovalatá, dorso elevato, la- teribus marginatis, extremitatis angulato-productis, basi depressa-planae, dentibus numerosis, angustis, acutis, interditis profundae incisis; dorso cernuto-cirruscente, obscurè fasciato, fulvo-fusco-creberrinie nigripunctatis, lateribus flaveo-fuscis, guttis grandibus nigricantibus orantis, basi albicante.

The little Arabic Cowrey. Shell oblate, back elevated, sides marginated, with the extremities angularly produced, base depressely flat, teeth numerous, narrow, sharp, interstices deeply cut; back blueish green, obscurely banded, very closely reticulately painted with brown, sides smoky brown, ornamented with large black spots, base whitish.

Lamarck, Anim. sans vert. (Deshayes' edit.), vol. x. p. 534.
Hab. St. Elena, West Columbia (under stones); Cuming.

There is something very peculiar in the form of this species, the base being flattened, the sides produced into a rim all round, whilst the teeth are very deeply cut in the interstices.

Species 61. (Mus. Cuming.)


The fine dotted Cowrey. Shell somewhat globosely ovate, thick, solid, sides rounded, base convex, teeth rather strong; back blueish green, very closely freckled with olive-brown, sides smoky black, sometimes bright- ened with a warm orange tinge, sprinkled with black spots.

Hab. Panama (found under stones), Cuming.

Intermediate between the C. pallida and Arabicula, but perfectly distinct from both.
Species 62. (Mus. Cuming.)

**CYPREÆ.**

**PLATE XIV.**

**CYPREÆ SAULE.** Cypr. testâ oblongo-ovatâ, posticê umbilicatâ, antico attenuatâ, lateribus antico margiunatis, extrematisbus productis, subflexis, aperturâ levis flexuosa, dentibus prominulis; dorso lacte, maculâ grandi conspiciâ centrâlâ, punctisque puncxis minutiissimis cibidâ aurantiaco-costaneâ picto, lateribus guttis perpunccis nigricantibus, incisâ castaneâ oratâ, basi albicante, dentibus albidis, interditis aureo-flavescensibus.

**SAUL'S COWREY.** Shell oblong-ovate, unumbilicated posteriorly, attenuated anteriorly, sides margined at the anterior end, extremities produced, a little reflexed, aperture slightly flexuous, teeth rather prominent, bold; back clear cream-coloured, painted with a large conspicuous central spot of bright orange chestnut, surrounded with a few very minute dots of the same colour, sides ornamented with a very few dark brown spots, base whitish, teeth whitish, interstices pale golden yellow.


**Hab.** Island of Corregidor, Bay of Manila (found among coarse sand and gravel at the depth of seven fathoms); Cuming.

This is one of the most distinct and pleasing species to look upon of any in the genus; the beautiful economy and delicacy of the bright sienna painting upon a clear cream-coloured ground, render it an object of peculiar admiration.

Species 63. (Mus. Cuming.)

**CYPREÆ ERYTHRÆNÆS.** Cypr. testâ sublongo-ovatâ, antico attenuatâ, lateribus rotundatâs, extrematibus subproductis, dentibus parcis, numerosis, per basam sublongatis; dorso viridi-corneo-enceute, punctis perpunccis minutiissimis maculâque grandi centrâlâ deformati aurantiaco-costaneâ picto, extrematibus guttâ unicoi aurantiaco-castaneâ utrinque ornâtis; lateribus, dentibus, basilico-aliâdibus.

**THE RED-SPOTTED COWREY.** Shell somewhat cylindrically ovate, attenuated anteriorly, sides rounded, extremities a little produced, teeth small, numerous, elongated partially across the base; back grecnish blue, painted with exceedingly minute orange-chestnut dots and a large central mis-shapen blotch of the same colour, extremities ornamented on each side with a single reddish chestnut spot, sides, teeth and base bluish white.

**BECK, MSS.** (Mus. Cuming.)

**Hab.** Red Sea; Rüppell. Zanzibar; Thorn.

The Cypræa erythraea exhibits without doubt a close approximation to the Cypræa stolida; but the differences, though minute, are constant, and determinable at a glance. In the first place it is uniformly smaller in size; the specimen here figured being rather above the average, and the largest I have seen. In form it varies in being less elevated, more cylindrically lengthened, and attenuated at the anterior end, without that sudden declivity which is so characteristic of its ally. There is moreover a marked variation in the colouring—in all the specimens I have seen, probably some twenty or more, the central dorsal blotch is of a different style, it is more open and irregular, and has no symmetry of squareness; I find no indication, either, of the angles of colour which characterise the four corners of the Cypræa stolida, nor are the teeth or edge of the extremities coloured.

Species 64. (Mus. Gaskoin.)

**CYPREÆ CYNLINDRICA.** Cypr. testâ elongato-ovatâ, subcylinâreâ, antico declicii, lateribus caud extrematibus margiunatis, reflexis, basi depresso-planâ, aperturâ antico dilatatâ, dentibus exterioribus grandibus subdistantibus, interioribus trinibus per basam sublongatis; dorso cerneo-enceute punctis maculâque grandi centrâlâ deformi fulco-castaneâ lentiginâs, extrematibus maculâ conspiciâ nigro-castaneâ utrinque pictis, lateri sinistro punctis perpunccis; dentibus basique ulbicentibus.

**THE CYLINDRICAL COWREY.** Shell elongately ovate, somewhat cylindrical, steep anteriorly, sides with the extremities margined, reflexed, base depressly flat, aperture anteriorly dilated, outer teeth large, rather distant, inner fine and elongated partially across the base; back bluish, freckled with very minute fulvous chestnut specks and a large mis-shapen central blotch, extremities painted on each side with a conspicuous blackish chestnut spot, the left side with one or two dots; teeth and base whitish.

December 1845.
BORN, Mus. p. 184. pl. S. f. 10.
Hab. Ceylon; Pacific Islands; New Holland.

The New Holland examples of this species are rounder and less elongated, approaching more to the form of the Cyprea erronea.

Species 65. (Mus. Cuming.)

**Cyprea diluculum.** Cyp. testa subpyriformi-ovata, ventricosa, aperturâ flexuosa, dentibus brevibus fortissimis; dorso violacea- castaneo, zonis duobus ant pluribus nodulato-albis ornatis, lateribus basique albis, punctis perparamus fuscis nodatis, extremitatis nigricante-castaneo-marginatis.

The Day-break Cowrey. Shell somewhat pyriformly ovate, ventricose, aperture flexuous, teeth short, rather strong; back violet-chesnut, ornamented with two or more zones of zigzag white, sides and base white, marked with a very few brown dots, extremities edged with dark chestnut.

*Cyprea ziczac* (pers.), Linneus, Martini.
*Cyprea notata*, Lamarck (not of Chemnitz.)
Hab. Philippine Islands; Cuming.

This ancient and well-known species requires to be distinguished by a new name in consequence of the word *notata*, applied to it by Lamarck, having been already used by Chemnitz in reference to a shell which proves to be the young of the *C. Mauritiana* (Conch. Cab. vol. x. p. 102). It was confounded by Linneus and Martini with the *C. ziczac*, and is extremely well figured by the latter in the first volume of his 'Conchylion Cabinet,' published in 1769.

Species 66. (Mus. Cuming.)

*Cyprea tabescens.* Cypr. testa oblongâ vel ovato, umbilicato, lateribus incurvatis, dentibus parvisculatis; dorso albicante, flavido-fuscocente pallide leuconia, maculis semicircularibus medio subobscurâ trizonato, lateribus fuscâ-punctatis, dentibus basique albicans.

The Consumptive Cowrey. Shell oblong or ovate, umbilicated, sides thickened, teeth rather small; back whitish, freckled with pale yellowish brown, and rather obscurely three-zoned across the middle with semilunar spots of the same colour, sides spotted with brown, teeth and base whitish.

SOLANDER, MS., Dilwyny Cat. vol. i. p. 463.
*Cyprea teres*, Gmelin (?).
Hab. Ceylon; Tahiti, Pacific Ocean (on the reefs); Cuming.
The figures in Martini's 'Conch. Cab.' f. 294 and 295, to which Mr. Gray and M. Deshayes refer for this species, are intended to represent, without doubt, the *Cyprea cy-

CYPREA.—Plate XIV.

**Cyprea stolidà.** Cypr. testâ oblongo-ovato, dorso elevato, extremitates versus utrinque declivi, lateribus cum extrematibus margi natis, subreflexis, aperturâ flexuosa, dentibus numerosis, per basem elongatis, interstilis subprofunde incisis; dorso cervicis, punctis minusstissimis, macula grandi quadrati centrali, macula que semiquadratâ ad utrumque angulum arrantio-castaneis dici piâ, basi albicante, dentibus et extremi tatibus arrantio-castaneis.

The Foolish Cowrey. Shell oblong-ovate, back elevated, steep down each side to the extremities, sides with the extremities margined, a little reflexed, aperture flexuous, teeth numerous, elongated across the base, interstices rather deeply cut; back blueish, brightly painted with very minute orange-chesnut dots, with a large central square spot, and with a half-square spot at each corner, of the same colour, base whitish, teeth and extremities orange-chesnut.

Robiga, Martini.
*Cyprea rubiginosa*, Gmelin.
Hab. Ceylon.

A careful comparison of the above description with that of the *Cyprea erythroceren*s, will show that there is a very characteristic specific difference between them, and one of which I find no intermediate modification.

Species 68. (Mus. Saul.)

**Cyprea spurca.** Cypr. testâ ovato, lateribus cum extrematibus margi natis, foveolatis, dentibus fortsi culatis; dorso luteo nebuloato et occultato, lateribus fuscocentis, foveolis fusicis, basi albicante.

The Dirty Cowrey. Shell ovate, sides with the extremities margined, pitted, teeth rather strong, back clouded and occulted with fulvous yellow, pits brown, base whitish.

*Cyprea acicularis*, Gmelin.
*Cyprea flavola*, Lamarck, (not of Linneus).
Hab. Mediterranean.

There is a curious variety of this well-known shell, in which the base has a large dark splash upon it.
CYPREA.

Plate XV.

Species 69. (Mus. Saul.)

CYPREA OB Vallata. Cypr. testa orbiculari-ovata, depressa, dorso angusto, elevato, lateribus caede incassato-marginatis; aperturæ angustæ, dentibus fortilibus, subelongatis; dorso carneo, annulo sanguineo interdum circumsicndo, lateribus basique sanguineo-albicantibus.

The intrenched Cowrey. Shell orbicularly ovate, depressed, back narrow, elevated, sides very much thickened and puffed out, aperture narrow, teeth strong, rather elongated; back blue, sometimes encircled with a blood-red ring, sides and base smoky white.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. x. p. 538.

Cypr. maculata, var., Dilwyn.

Hab. Tahiti, Pacific Islands (found on the reefs); Cuming.

I use the term obvallata instead of obcutata, believing it to be the word which Lamarck intended to characterize the peculiar growth of this shell. Those who think with me that such was the case, will adopt it without prejudice to the authenticity of the species.

Species 70. (Mus. Cuming.)

CYPREA NUCLEUS. Cypr. testa ovata, extremitatis productis et rostratis, dorso noduloso, nodulis, præcìpìi lateralisbus, liris condensatis, basi convexa, dentibus parvis, in liris angustis per bascem utrinque extensus; sordida alba, nodulis lirisque pallide ferrugineis.

The hard-crusted Cowrey. Shell ovate, extremities produced and beaked, back nodulous, nodules, particularly the lateral ones united together by ridges, base convex, teeth small, extending across the base on both sides in ridges; dull white, nodules and ridges pale rusty brown.

LINNEUS, Syst. Nat. (12th edit.), p. 1181.

The dorsal line of this species is represented by a rather deep longitudinal groove.

Species 71. (Mus. Cuming.)

CYPREA ANNULLUS. Cypr. testa ovata, basi concava-depressa, lateribus incassatis, declivibus, dentibus, fortibus, subdistantibus; Juvaeo-albidæ, dorso annulo sanguineo circumsicndo.

The ring Cowrey. Shell ovate, base concavely depressed, sides thickened, steep, teeth strong, rather distant; smoky white, back encircled with a blood-red ring.


Hab. Eastern Seas.

There is no indication in this species of the oval intrenchment which characterizes the growth of the Cypræa obvallata.

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Species 72. (Mus. Cuming.)

CYPREA HELVOLA. Cypr. testa ovata, depressa, lateribus incassatis, medio turgidis, marginatis, fortilibus, dentibus fortibus, lateralibus, exterioribus per bascem partim elongatis; dorso olivaceo-fuscobrunneo, occelli numerosis albis, nucineisque stellaribus fusto-rubidis spuris ornatæ, lateribus basique fuscobrunnibus, colore supra margine saturniari, extremitatis violaceis.

The red Cowrey. Shell ovate, depressed, sides thickened, swollen in the middle, margined, pitted, teeth strong, rather broad, the outer partially elongated across the base; back pale olive-brown, ornamented with numerous white eyes and fulvous brown starry spots, sides and base brownish red, colour darker above the edge, extremities violet.


Hab. Ceylon.

A common species but one of the most richly and beautifully coloured of the series.

Species 73. (Mus. Cuming.)

CYPREA OCELLATA. Cypr. testa ovata, basi subdepressa, lateribus turgidis, submarginatis, obscurè fuscosis, dentibus fortilibus; dorso rufescens-flavo, ocellis numerosis albis, quorum nonnullis hie illic nigro-papillatis, ornato, basi lateribusque albidis, fuscum-pacatatis.

The ocellated Cowrey. Shell ovate, base a little depressed, sides swollen, submargined, obscurely pitted, teeth strong; back reddish-yellow, ornamented with numerous white eyes, some of which are pupilled with black, base and sides whitish, dotted with brown.


Hab. Eastern Seas.

Another abundant and beautifully marked species well-known to collectors.

December 1845.
Species 74. (Mus. Saul.)

**Cyprea moneta.** Cypr. testá trigono-ovatá, depressá, lateribus incurvato-marginatis, tuberculatis, dentibus subobtusis, basi tuberculatá; alba, pallidè stramineá, ant. flavá, dorso annulo tenui sanguineo-rufó interdum circumvincto.

**The money Cowrey.** Shell triangulare ovata, depressed, sides thickly margined, tuberculated, teeth rather obtuse, base tuberculated; white, pale straw-colour or deep yellow, back sometimes encircled with a faint blood-red ring.

**Linneus, Syst. Nat.** (12th ed.) p. 1178.

*Hab.* Taheite, Pacific Ocean (on the reefs): Cuming.

The colour of this species varies from white to a very deep yellow.

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Species 75. (Mus. Saul.)

**Cyprea Madagascariensis.** Cypr. testá ovátá, peculiariter depressá, dorso noduloso, nodulis liris cunundatis, sulco dorsali impresso, lateribus marginatis, extemationibus obtusis, apertura angustá, dentibus tenuibus, basen super in liris extensis, quorum alternis praecepte ad latus sinistrum, minoribus; tecto, dorso ronco-fasciato pallidissimá tincto, liris basaliis rufo-fuscescentes tenuiter marginatis.

**The Madagascan Cowrey.** Shell ovate, peculiarly depressed, back nodulated, nodules connected together by ridges, impressed by a dorsal groove, sides marginated, extremity obtuse, aperture narrow, teeth fine, extending over the the base in ridges, the alternate of which, on the left side more particularly, are smaller; cream-colour, back tinged with pinkish-brown, basal ridges edged with reddish-brown.

**Gmelin, Syst. Nat.** p. 3419.

*Cypraea moneta, var. b.* Lamarck.

*Hab.* Madagascar.

This species is uniformly larger in size than the C. nucleus, much more depressed, and of a peculiarly soft pinkish cream-colour. The extremities are more obtuse, and the ridges across the left base are alternately larger and smaller.

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Species 76. (Mus. Cuming.)

**Cyprea pustulata.** Cypr. testá ovátá, antice attenuatá, basi depressá, dentibus in liris conspicis per basem utrinque extensis, columnála cum concavitate antice ascéntaque, dorso striis elecctis in longitundinibus et transversis, quorum transversis fortioris, subtilissimé cancellato, verrucis numerosis promineatibus, quorum naria majoribus, unus; dorso cinereo-plambeo, verrucis róseó-corallo-rubris, ad basem nigro-anulatis, basi nigricante-fusàtis, liris albis.

**The pustular Cowrey.** Shell ovate, somewhat attenuated anteriorly, depressed at the base, teeth extending across the base on each side in conspicuous ridges, columnella with the anterior concavity smooth, back very finely cancellated with slightly elevated longitudinal and transverse striae, of which the transverse are the stronger, and armed with numerous prominent pimplies which of the middle are the largest; back ashy lead-colour, pimplies bright coral-red ringed with black, ribs whitish.

**Testa junior.**

*Testa junior dorso cancellato, verrucis nullis*

Younger shell with the back cancellated, but destitute of pimplies.

**Lamarck, Anim. sans vert.** (Deshayes' edit.) vol. x. p. 535.

*Hab.* Isle of Pita and Panama, west coast of America (found under stones); Cuming.

It is a circumstance worth noting in the growth of this shell that the teeth become considerably developed before there is any indication of dorsal pimplies.
CYPRÆA.

PLATE XVI.

Species 77. (Mus. Cuming.)

CYPRÆA CUMINGII. Cypr. testâ oblongo-ovatâ, anticâ attenuâ extensâ, lateribus marginatis, extremis distinctis, productis et reflexis, apertura flexuosa, dentibus tenuibus, praecipue interioribus; dorso fulvo-stramineo, occid. albidis. Fuso annulatis parvisim ornato, lateribus castaneo-punctatis, basi alba.

CUMING's Cowrey. Shell oblong-ovate, attenuately drawn out anteriorly, sides margined, extremities produced and reflected, apertura flexuous, teeth fine, especially the inner; back fulvous straw-colour, sparingly ornamented with rather small white eyes tinged with pale brown, sides dotted with dark chestnut brown, base white.

GRAY; Sowerby, Conch. Illus. Cat. Cypreaæ, no. 77. f. 5 and 151.

Hab. Island of Kieeta, Society Islands (found under coral on the reefs at low water); Cuming.

This beautiful species may be distinguished from the Cypræa cribbriâria by its attenuated and elegant growth, by the clearness and delicacy of its colouring, and by the spots being smaller, fewer in number, and ringed with pale brown.

Species 78. (Mus. Saul.)

CYPRÆA CITRINA. Cypr. testâ globoso-vel oblongo-ovatâ, ventricosa, lateribus marginales et forestatis, apertura latissimâ, dentibus brevibus; dorso olivaceo-rubido maculis inaequalibus rotundis albidis irregulariter asperâ, subitus cinerascens, obscurâ fasciato, hiatus dorso latissimo, lateribus extremis distinctis basi citrina-rubido, basi castaneo tincto.

The citron Cowrey. Shell globosely or oblong-ovate, ventricose, sides margined, pitted, apertures rather wide, teeth short; back olive ruddy colour, irregularly sprinkled with unequal round white spots, ash-colour underneath, obscurely banded, dental hiatus rather wide, sides extremities and base citron-red, base stained with chestnut.


Hab. —?

The specimen here figured from the collection of Miss Saul is the only one I know in really fine condition. The species varies in form from a swollen globose to an oblong shape.

Species 79. (Mus. Saul.)

CYPRÆA BICALLOSA. Cypr. testâ obvato-oblongâ, lateribus submarginales, obscurâ forestatis, extremis distinctis, callositate plus minuscule conspicue munita, apertura flexuosa, dentibus fortibus, per basea subelongatis, interstices profunde excavati; rubido-croceâ, dorso castaneo variâ maculato et noddato.

The two-callus Cowrey. Shell ovately oblong, sides slightly margined, obscurely pitted, extremities somewhat beaked, furnished with a more or less conspicuous calus, apertura flexuous, teeth strong, a little elongated across the base, interstices deeply excavated; reddish saffron colour, back variously clouded and mottled with chestnut.

GRAY; Sowerby, Conch. Illus. Cat. Cypreaæ, no. 70. f. 10.

Hab. Island of St. Vincent, West Indies; Guiding.

An extremely rare and interesting species, distinguished from all others not only by its callosities, but by its general form and colouring.

Species 80. (Mus. Saul.)

CYPRÆA ESONTROPIA. Cypr. testâ ovato-oblongâ, subumbilicâta, solidiuscula, lateribus incrassatis, marginales, dentibus fortibus; dorso luteo vel pallide cinamomea, maculis rotundis numerosis subannulis ornato, lateribus basique eburneis, lateribus cinamomeo punctatis.

The keeled Cowrey. Shell ovate-oblong, rather solid, slightly umbilicated, sides thickened, margined, teeth strong; back yellowish or pale cinnamon-brown, ornamented with numerous rather large white spots, sides and base ivory white, sides dotted with cinnamon-brown.

DUCLOS, Magasin de Zoologie 1833, pl. 36.

Hab. Philippine Islands; Cuming.

Distinguished from the following species to which it is so nearly allied, by its thickened growth, by its larger and more contiguous spots, and by the dotted colouring of the sides; characters which appear to be of uniform constancy.

Species 81. (Mus. Saul.)

CYPRÆA CRIBRARIÀ. Cypr. testâ ovato-oblongâ, subumbilicâta, tenuiscula, lateribus marginales cum extremis...
tubus plicatus reflexis, dentibus subnumerosis; dorso lateo vel cinamomeo, maculis rotundis albis plus minusve numerosis ornato, basi lateribusque eburneis.

The sieve-like Cowrey. Shell ovate-oblong, rather thin, sides margined generally with the extremities reflexed, teeth rather numerous; back yellow or cinnamon-brown, ornamented with more or less numerous round white spots, base and sides ivory white.

Testa junior.

Testa junior floccente-lacteo latifasciata, immaculata.

Younger shell encircled with broad bands of yellowish cream-colour, without spots.


Hab. Ceylon.

It is not literally correct to say that the back of this species is spotted; there is no deposit of spots, the last coat of cinnamon-brown colour being perforated, like a sieve, the white or cream coloured ground of the intermediate state is seen through each orifice. The two different shades generally observable in the colour, shows that the left mantle of the animal must be of unusually large proportion, whilst the right is small and feeble.

Species 82. (Fig. a and b, Mus. Saul.)

Cyprea staphylea. Cypr. testa ovata, dorso multigranoso, granis later is versus prominentioribus, lateribus et extremitatibus foceolatis, dentibus per basem utrinque extensis; dorso lavendalo aut cinereo-violaceo, granis albidis, dentibus et extremitatibus croceo-fuscisentibus, extremitatibus interdum purpureis, basi algae ante.

The grape-shot Cowrey. Shell ovate, back many-grained, grains more prominent towards the sides, sides and extremities pitted, teeth extended across the base on each side; back lavender or ash violet, grains whitish, teeth and extremities yellowish brown, extremities sometimes purple, base whitish.

Variety β, Fig. 82 a.

Testa grandior, teniir, dorso levigato, maculis graminibus locis.

Shell larger, thinner, smooth, with spots instead of grains.


Variety β, Cyprea intermedia, Wood.

Varietas intermedia, Cyprea limacina, Lamarck.

Hab. Philippine Islands (all varieties); Cuming.

This I consider, without exception, the most variable species of the genus, so much so that I can only particularize the two extremes through which all the variations range. The typical variety (Fig. b) is small and granular, the opposite variety (Fig. a) is smooth, the grains being replaced by spots, and larger, confirming with peculiar accuracy an observation in my Monograph of the Cones to the effect that all those varieties of shells in which the surface is raised in granules, are proportionally more diminutive in size. One of the most constant character throughout the varieties of this species is the yellowish-brown colouring of the teeth and extremities, indeed it is hard to distinguish some of the white varieties from the C. nucleus except by this peculiarity.

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Species 83. (Musc. Cuming.)

Cyprea Listeri. Cypr. testa ovata, depressinscula, lateribus extremitatisbusque marginatis et foceolatis, dentibus fortissimis, interstictibus profunde excavatis; dorso pallido olivaceo, punctis purpureis albis, guttis olivaceo-fuscis sparsis inaequalibus ornato; lateribus basi que purpureascens-violaceis, purpureo lineatis et punctatis.

Lister's Cowrey. Shell ovate, rather depressed, sides and extremities margined and pitted, teeth rather strong, interstices deeply excavated; back pale olive, ornamented with a very few white dots, and a few scattered unequal olive-brown spots; sides and base pale purple-violet, dashed and dotted with purple.


Hab. Philippine Islands; Cuming.

A beautiful species, and one of great rarity, well distinguished by its peculiarity of colouring.
CYPÆA.

PLATE XVII.

Species 84. (Mus. Gaskoin.)

CYPÆA PULICARIA. Cypr. testá subcylinraceo-oblongá, antíci subulecliae, latere dextro margiñato, levere contractó, aperture triumphá, dentibus minístis; pelliculo-átá, vel látá, lateribus dorsoque punctá rubido-fuscis subnoveispicis aspérís.

THE FLEA-SOTTED COWREY. Shell somewhat cylindrically oblong, somewhat steep anteriorly, right side margiñated, slightly contracted, aperture narrow, teeth minute; transparent white or yellowish, sides and back sprinkled with rather conspicuous reddish-brown dots.


Hab. — ?

This is quite a distinct species from the Cyprea pipera, with which I have frequently seen it mingled in collections; it is of a smaller and more cylindrically oblong form and is not banded, whilst the dots are more conspicuous.

Species 85. (Mus. Saul.)

CYPÆA EDENTULA. Cypr. testá subpyriformi-ovatá, infiátá, spirá plano-depressá, latere dextro margiñato, postícé producto, aperture latinsculá, colunmellá labroque edentulís; albídá, dorso rubido-castaneo profúsus picto, lateribus punctátis.

THE TOOTHLESS COWREY. Shell somewhat pyriformly ovate, inflated, spire flatly depressed, right side margiñated, produced posteriorly, aperture rather wide, lip and colunmella toothless; white, back profusely painted with reddish-castaneous tones, sides dotted.


Cyprea (Lepsius) Algowsis, var. Gray.

Hab. Southern Africa.

This shell, of which I have examined numerous examples, is specifically distinct from the Cyprea Algowsis without reference to the absence of teeth; it is of a shorter and more inflated growth, and the back is more conspicuously bedaubed with chesnut colour.

Species 86. (Mus. Saul.)

CYPÆA CAPENSIS. Cypr. testá ovatá, profundé umbilícata, basi peculiariter depressá, lateribus conspicúi margiñatis, extremítulibus præcipúi postícis productí, oper-

túrá semicirculará, colunmellá dorsoque liris rugosiformi-
bus parvis numerosissimis confertís superficiáriis, labri
dentes versus convergentibus tectí: sordide intra-fus-
cescente.

THE CAPE COWREY. Shell ovate, deeply umbilicated, peculiarly depressed, sides conspicuously margiñated, extremities, especially the posterior, produced, aperture crescent-shaped, colunmella and back covered with very numerous close-set small superficial wrinkle-like ridges, converging towards the teeth of the lip; dirty light yellowish-brown.

Gray, Wood Index Testaceologicus Supp. pl. 3. f. 18.

Cypreaeae Capensis Gray.

Hab. Cape of Good Hope.

The ridges of this remarkable and, now, well-known spe-
cies are of a curious superficial epidermal character, though converging round the lip with some solidity.

Species 87. (Mus. Saul.)

CYPÆA PIPERATA. Cypr. testá subpyriformi-ovatá, latere dextro margináto, dentibus parvis; lateribus dorso fusci quaternís pallide castaneis interruptís ornato, obscuré minus punctátis, lateribus punctátis.

THE PEPPERED COWREY. Shell somewhat pyriformly ovate, right side margiñated, teeth small; yellowish, back ornamented with four interrupted pale chesnut bands, obscurely minutely dotted, sides dotted.


Cyprea augustata var. (f. 2. b.) Kiener.

Hab. New Holland.

The two central bands of this species are sometimes amalgamated into one of double width. It is of a more pyriform shape than that which I have distinguished by the new title of Cyprea pulicaria, and the painting and dotting are of quite a different character.

Species 88. (Mus. Saul.)

CYPÆA FUSCO-DENTATA. Cypr. testá subpyriformi-ovatá, postícé plano-depressá, umbilícata, margiñatis sub-
incassatis, dentibus basem super rugoso-líratis, cola-
mellá lirigáta; labri seminásculo; sordente ant sortá alba, dentibus fuscis.

January 1846.
The brown-tooth Cowrey. Shell somewhat pyriformly ovate, posteriorly flatly depressed, slightly umbilicated, margins rather thickened, teeth rugose, ridged across the base; columella smooth; yellowish or dirty white, teeth brown.

Hab. Cape of Good Hope.

No examples of this species appear to have come to hand in any better condition than that described more than twenty years ago by Mr. Gray, with the back entirely decorticated, but amply distinguished from any other at the base.

Species 89. (Mus. Cuming.)

Cypraea similis. Cypr. testa subpyriforme-ovata, ventricosa, postice plano-obtusa, crassiuscula, lateribus submarginatis, apertura latiuscula, dentibus exterioribus subdistantibus, base versus partim elongatis, interioribus parceis numerosis irregularibus confertis; sordida alba, fuscoscendo spiram versus indistincte spiraxia marinita.

The similar Cowrey. Shell somewhat pyriformly ovate, ventricose, posteriorly flatly obtuse, rather thick, sides slightly margined, aperture rather broad, outer teeth somewhat distant, partially elongated across the base, inner small, numerous, irregular, close-set; dead white, back indistinctly spotted here and there around the spire with pale brown.

Gray, Zoological Miscellany. p. 36.
Hab. Cape of Good Hope.

This is another remarkable shell from South Africa of which no other specimen has been seen. Like all the species from that locality figured in the accompanying plate, it is of an opake white, tinged with brown, without any porcellaneous enamel.

Species 90. (Mus. Gaskoin.)

Cypraea Algoensis. Cypr. testa oblonga-ovata, postice depressiuscula, latere dextra marginato, postice prodecora, apertura latiuscula, dentibus exterioribus subelongatis, interioribus parceis brevissimis; lutescente-lactea, lateribus dorsoque rubido-fusco posticate.

The Algoa Cowrey. Shell oblong-ovate, rather depressed posteriorly; right side marginated, produced posteriorly, aperture rather wide, outer teeth slightly elongated, inner small, very short; yellowish cream-colour, sides and back dotted with reddish brown.

Hab. Algoa Bay, South Africa.

The inner teeth of this species are rarely represented by anything more than a row of granular nodules.

Species 91. (Mus. Gaskoin.)

Cypraea angustata. Cypr. testa ovata, incurvata, lateribus tumidiusculis, submarginatis, basi depressa, dentibus parceis, precipice interioribus: dorso cinereo-fusco, lateribus albicansibus, proncis grandibus castaneis conspicue notatis, extrematibus maculatis castaneo atriumque pictis, basi alba.

The straightened Cowrey. Shell ovate, thickened, sides rather swollen, slightly margined, base depressed, teeth small, especially the inner; back ashy brown, sides whitish, conspicuously marked with large chestnut brown dots, extremities painted on each side with a chestnut brown spot, base white.

Hab. New Holland.

Although a species comparatively not uncommon, the specimen here figured from the collection of Mr. Gaskoin is the only one I know that is not more or less worn, or uncoated. It has a bright enamelled porcellaneous surface consisting of a layer of dark brown colouring matter, overlaid with a thin filmy coating of semi-opake cream colour.
Cyprea.

PLATE XVIII.

Species 92. (Mus. Saul.)

Cyprea fimbriata. Cypr. testa oblongo-ovata, lateribus submarginatis, medio leviter contractis, basi plano-depressa, aperturâ antiquâ hiatû, dentibus parvi-alutis; albicante, dorso olivaceo-fusco minutissime lentiginose, maculae grandi centrali indistinctâ, extrematibus nauculâ conspicuâ nigricante-violacea striaque ornatis.

The fimbriated Cowrey. Shell oblong-ovate, sides somewhat margined, slightly contracted in the middle, base flatly depressed, aperture gaping anteriorly, teeth rather small; whitish, back very minutely freckled with olive brown, with a large indistinct central blotch, extremities ornamented on both sides with a conspicuous dark violet spot.


Hab. Japan (under stones) Dr. Siebold.

A species which is extremely variable in size, but always distinguishable by the dark violet spots on each side of the extremities.

Species 93. (Mus. Gaskoin.)

Cyprea teres. Cypr. testa elongato-ovata, latere dextra conspicuâ marginata, basi peculiérer depressa, extrematibus prominentibus subrostratis, aperturâ angulari, dentibus minutis; albicante, dorso nuculâ fuscocenêlus undatis.

The tapering Cowrey. Shell elongately ovate, right side conspicuously margined, peculiarily depressed at the base, extremities prominent, somewhat beaked, aperture narrow, teeth minute; whitish, back painted with three bands of waved pale brown spots, right side dotted with brown.

Gmelin; Sowerby Conch. Illus. Cat. Cypreae, no. 72. f. 56.

Cyprea tabescens, var. Gray.

Hab. —?

I take this shell as the Cyprea teres of Gmelin on the authority of Mr. Sowerby, though it is somewhat doubtful; it is, however, a species distinct from the C. tabescens, and one of great rarity. There are two specimens in the collection of Mr. Gaskoin.

Cyprea albuginosa. Cypr. testa oblongo-ovata, extrematibus subobtusis, dentibus brevibus; dorso luteo, violaceo-fusco picto, ocellis, marmorosis albis, fusco-annulatis, ornato, lateribus violaceis, purpureo punctatis, basi violaceo-albâ.

The white-eyed Cowrey. Shell oblong-ovate, extremities rather obtuse, teeth short; back fulvous, painted with violet-brown, ornamented with numerous white eyes encircled with brown rings, sides violaceous, dotted with purple, base violet-tinged white.


Hab. California.

A richly painted violet and brown shell, closely studded with white eyes encircled with brown rings which are mostly thicker on one side than the other.

Species 95. (Mus. Cuming.)

Cyprea flaveola. Cypr. testa oblonga, lateribus margo-natis et fuscatis, basi depressâ, dentibus sublongatâs; dorso luteo-fusco, ocellis albis variis profuse ornatis, marmoribus atro-fuscis tinctis et punctatis, basi albâ.

The yellowish Cowrey. Shell oblong, sides margined and pitted, base depressed, teeth somewhat elongated; back yellowish brown, profusely ornamented with white eyes of various sizes, margins stained and dotted with blackish brown, base white.

Linneus, Syst. Nat. p. 1179. (not of Born, or Lamarck.)

Hab. —?

Very closely allied to the following species, but differing by its more straightly oblong form, and absence of black rings. Care must be taken not to confound this shell with the C. flavescens of Lamarck, which is the C. purpurea, or the C. flavescens of Born, which is the C. rusta.

Species 96. (Fig. a Mus. Cuming, Fig. b. Mus. Gaskoin.)

Cyprea gangrenosa. Cypr. testâ subpyriforme-ovata, lateribus marginatis et fuscatis, basi subplanitâtâ, dentibus sublongatis; dorso olivaceo, ocellis minutis albis, annulisque perruncis fuscis ornatis, extrematibus atro-fuscis tinctis, basi albâ.

January 1846.
Species 97. (Mus. Cuming.)

*Cyprea ziczag.* *Cypr. testa subpyriformi-ovata, umbilicata, dentibus subelongatis; dorso albiceo, lineis flavescentibus undatis longitudinaliter ornato, lateribus basique rufo-aurantiis nigro vittatis.*

The zigzag Cowrey. Shell somewhat pyriformly ovate, umbilicated, teeth rather elongated; back whitish, ornamented with longitudinal zigzag yellow lines, sides and base reddish orange brightly dotted with black.


Hab. Mozambique (under stones); Hennah.

There is a beautiful variety of this ancient, though not abundant, species, in which the zigzag lines resolve themselves into distinct bands. The base is very similar to that of the *Cyprea lutea.*

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Species 98. (Mus. Cuming.)

*Cyprea asellus.* *Cypr. testa oblongo-ovata, lateribus vix marginatis, dentibus subelongatis; eburnea, dorso fuscis tribus latissimis nigro-fusciis ornato.*

The little ass Cowrey. Shell oblong-ovate, sides very slightly margined, teeth a little elongated; ivory white, back ornamented with three broad blackish-brown bands.


Hab. West Indies.

It is curious to observe that the very characteristic dark bands of this species are not deposited at the last; they appear in all the earlier stages of growth winding round the columella, and in the adult are cut off, as it were, on each side by the superposition of a layer of ivory white.

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Species 99. (Mus. Cuming.)

*Cyprea poraria.* *Cypr. testa suboblongo-ovata, crassiruncinata, lateribus subindistincte foveolatis, dentibus subelongatis; extremitatibus obtusis; fulvous, dorso punctis albis numerosis, quibusdam fusco-animalatis, ornato, lateribus basique purpureo-violaceis.*

The porous Cowry. Shell shortly ovate, thick, sides rather indistinctly pitted, teeth a little elongated, extremities obtuse; fulvous, back ornamented with numerous white dots some of which are encircled with brown rings, sides and base purple-violet.


Hab. Tahiti, Pacific Ocean (on the reefs); Cuming.

The painting of this species is very similar to that of the *Cyprea albginosa,* but it may always be distinguished by its more diminutive and stunted form.
CYPREA.

PLATE XIX.

Species 100. (Mus. Saul)

**Cyprea neglecta.** Cypr. testa oblongo-ovata, ad extremitatis subdeciici, lateribus submarginatis, dentibus elongatis; dorso carneo obscuro fasciato, punctis minutis fuscis maculisque grandi centrali, subquadrate, ornato, extremitatis macul. nigra urtinaque pictis, lateribus albis, nigro-punctatis, basi albo.

The neglected Cowrey. Shell oblong-ovate, steep at the extremities, sides slightly margined, teeth elongated, back blue, obscurely banded, ornamented with minute brown dots and a large central square spot, extremities painted with a black spot on each side, sides white, dotted with black, base white.


Hab. Mauritius.

Curiously intermediate between the Cyprea stolida and hirundo, but quite distinct from either.

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Species 101. (Mus. Saul)

**Cyprea punctata.** Cypr. testa ovata, dentibus parvis, interdum brevibus, interdum per basem subelongatis; lacteâ, dorso punctis fuscis asperso, extremitatis et dentibus aureo-florecentibus.

The dotted Cowrey. Shell ovate, teeth small, sometimes a little elongated across the base; cream-colour, back sprinkled with brown dots, teeth and extremities golden yellow.

Linneus Mantissa p. 345.

Hab. Philippine Islands ; Cuming.

Cyprea atromaria, Gmelin.

Cyprea stercus-nuscarum, Lamarck.

There appears to be two very distinct states of this species, one in which the teeth are yellow and extend partially across the base, as represented in the accompanying figure, the other in which the teeth are very fine, short and colourless.

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Species 102. (Mus. Cuming)

**Cyprea sanguinolenta.** Cypr. testa ovata, dentibus brevibus, interioribus subobtusis; dorso cinereo-purpureo-rascenti fasciato, olivaceo parce lentiginoso, maculâ fuscâ grandi centrali irregulari, lateribus purpureo-punctatis.

The blood-spotted Cowrey. Shell ovate, teeth short, the inner somewhat obscure; back banded with ashy purple, sparingly freckled with olive, with a large irregular brown blotch in the centre, sides dotted with purple.


Hab. Mouth of the Gambia, Africa (under stones); Hennah.

A well-defined species which, though not uncommon, is rarely found in fine condition.

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Species 103. (Mus. Cuming)

**Cyprea interrupta.** Cypr. testa oblongo-ovata, dentibus parvis; dorso olivaceo-iridiscenti lentiginoso, maculis nigricante-olivaceis subquadrate et trifasciatis, lateribus granulatibus, basi albo.

The interrupted Cowrey. Shell oblong-ovate, slightly umbilicated, teeth small, back freckled with olive green, and ornamented with three bands of square dark olive spots, sides and base white.


Hab. Ceylon.

A species well distinguished by three interrupted bands of oblong-square spots.

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Species 104. (Mus. Cuming)

**Cyprea hirundo.** Cypr. testa oblongo-ovata, dentibus subconspicuis; dorso viridescens-carneolo nebulato et fasciato, punctis fuscis minutis asperso, lateribus fusco-punctatis, extremitatis maculâ nigricante-fusca urtinaque pictis, basi albâ.

The swallow Cowrey. Shell oblong-ovate, teeth rather conspicuous; back clouded and banded with greenish blue, sprinkled with minute brown dots, sides dotted with brown, extremities painted on each side with a blackish-brown spot, base whitish.


Hab. Eastern Seas.

According to M. Deshayes, Lamarck confounded the Cyprea felina, and probably one or two other species,
with this. There is a marked variety of the *C. hirundo* in which the blue painting is obsolete and the brown dots more conspicuous and numerous; the *C. Oecenii* Sowerby, which name he afterwards cancelled. The *C. arsellus* of Gmelin is thought to be a worn specimen of the *C. hirundo*.

**Species 105. (Mus. Cuming.)**

**Cyprea Felina.** *Cypr. testa oblongo-ovata, lateribus submarginitatis, basi depressiuscula, dentibus fortissimis, subdistantibus; dorso viridi-caruleo, late trifasciato, punctis olivaceis ubique lentiginoso, lateribus flavisculitis, umbilis nigris conspicue ornatis, basi flavicante.*

The cat Cowrey. Shell oblong-ovate, sides slightly margined, base somewhat depressed, teeth rather strong; back greenish-blue, disposed in three broad bands, freckled all over with olive dots, sides yellowish, conspicuously ornamented with black spots, base yellowish.

**Variety B** (Fig. 6.)

*Testa abbreviata, gibbosa, dorso elevato.*

Shell shortened, gibbous, back elevated.


**Variety B. Cyprea fabula.** Kiener.

*Hab. ——?*

The Variety B was specially noticed by Mr. Gray on his first introduction of the species in the Zoological Journal. It is a variation of growth common to many other species of the genus.

**Species 106. (Fig. a Mus. Cuming; Fig. 6 Mus. Saul.)**

**Cyprea Clandestina.** *Cypr. testa ovata, unabilicata, dentibus orbellatis subconspicuis; dorso incurvato-lactea, obsoletâ trifasciato, lineis rufis exilissimis, hic illie an-

gulatim convergentibus, transversim ornato, lateribus basique eburneis.*

**The clandestine Cowrey.** Shell ovate, umbilicate, teeth strong, rather conspicuous; back fleshy cream-colour, obsoletely three-banded, ornamented versely with extremely faint red lines converging here and there to a point, sides and base ivory-white.


*Cyprea moniliaris*, Lamarek.

*Hab. Ceylon.*

The faint transverse red hair-lines, converging here and there to a point, form an extremely characteristic feature in this species.

**Species 107. (Mus. Saul.)**

**Cyprea Quadrimalculata.** *Cypr. testa subcylindraceo-ovata, stringe attenuato-rostrata, dentibus subprominalis; dorso pallide carnescente, olivaceo minutissime lentiginoso, extremitatis macula nigricante-fusca conspicue ornatis, basi alba.*

**The four-spotted Cowrey.** Shell cylindrically ovate, attenuately beaked at each end, teeth rather prominent; back pale blue, very minutely freckled with olive, extremities conspicuously ornamented with a blackish brown spot on each side, base white.


*Hab. ——?*

Although the *Cypraea hirundo*, *cylindrica*, and a few others are characterized by the appearance of two dark spots at each extremity, they have not the same conspicuous aspect as in the species under consideration, on account of the pale delicate colouring of the shell. The *Cyprea quadrimalculata* is moreover peculiarly distinguished by the attenuated growth of its extremities.
CYPREA.

PLATE XX.

Species 108. (Mus. Cuming.)

CYPREA VESICULARIS. Cypr. testá globo-ovalata, tenús, subpellucida, stris subtilibus elevatis, icic illis bifurcatis, crerrumé ornate; aperturá amplá, latá; labro dentáculo, dentáculis subdistantibus; pallide pellucidocarmé.

THE VESICULATED COWREY. Shell globose inflated, thin, somewhat transparent, very closely ornamented with fine raised strie, bifurcated here and there; aperture large, wide, lip finely toothed, teeth rather distant; pale transparent flesh-colour.


Hab. Cape of Good Hope.

Lest this interesting little species may be taken for the young of the Cypraea oniscus, it may be observed that the dorsal striae are much more numerous and regular, whilst the denticulations of the outer lip are comparatively fewer in number. There is, moreover, no dorsal impression, and the stria terminate less abruptly on the columella.

Species 109. (Mus. Cuming.)

CYPREA COSTATA. Cypr. testá globo-oblungá, tenús, inflatá, subpellucida, later déxtro subincrassato; stris subtilibus numerosis elevatis, rari interruptis, uníque ornata; aperturá amplá, latá; pallidé roseá, apicé labrocé albicantibus.

THE RIBBED COWREY. Shell globose oblong, thin, inflated, rather transparent, right side slightly thickened; ornamented throughout with numerous fine raised striae, rarely interrupted; aperture large, broad; pale rose, lip and apex whitish.

GMELIN, Syst. Nat. p. 3418. no. 94.

Cypraea (Trivics) carnea, Gray.
Cypraea rosea, Wood, Kiener.

Hab. — ?

I follow M. Deshayes in referring this species to the Cypraea costata of Gmelin; but he has erred in stating that M. Kiener has taken it for a variety of the Cypraea oniscus.

Species 110. (Fig. a and b Mus. Walton.

Fig. c Mus. Saul.)

CYPREA LUTEA. Cypr. testá subpyriformis-ovalá, umbilicata, lateribus marginatis, extremitis lobulibus paululum reflexis; dorso lacteo-ceruleo, punctis lacte-fuscis irregulariter nodulatis, profuse inquinato, lateribus extremis basique lacteis aurantiaco, nigricante-fusco punctatis, dentibus pallidioribus.

THE YELLOW COWREY. Shell somewhat pyriform ovate, umbilicated, sides margined, extremities a little reflexed; back milky blue, profusely bedaubed with irregularly clouded yellowish-brown dots, sides, extremities, and base, yellow or orange, dotted with dark brown, teeth paler.

Variety ß Fig. 110 c.

Testa porra, dorso olivaceo-fuscocente, zonis duobus angustis lacteo-ceruleis.

Shell small, back olive-brown, with two narrow milky blue zones.

GRONVIOUS, Zoophylacium, fasc. 3. pl. xix. f. 17.

Cypraea Humphreysii, Gray.

Hab. — ?

I quite agree with M. Deshayes in identifying this interesting and rare species with the Cypraea lutea of Gronvius; the figure in the 'Zoophylacium' is perhaps a little obscure for want of colour, but the description, though short, is sufficiently characteristic; — "testa umbilicata, supra fuscescente albo-fasciata, subutus lutea punctis fascis."

This well-known state of the shell must, however, be regarded as a variety, as we have it, in the collection of Mr. Walton, as represented at Fig. 110 a and b, of larger size and in a much more perfect and elaborately painted condition. The whole of the dorsal surface is a clear milky blue profusely bedaubed with light brown splashes, clouding one with the other.

An intermediate state has been represented by Sowerby in the Conchological Illustrations f. 55, copied so inaccurately by Kiener as to exhibit a dot-banded character entirely foreign to the species.

Species 111. (Mus. Saul.)

CYPREA ONISCUS. Cypr. testá globo-ovalá, valde inflatá, later déxtro incrassato; stris elevatis aut coseulis bifurcatis et rugatis ornata; impressione loci dorsali centrali; aperturá amplá, latissima; columnellá loci; dorso rosaceo-carneo, basi albicante.

February 1846.
The wood-louse Cowrey. Shell globosely ovate, very much inflated, right side thickened; ornamented with bifurcated and wrinkled raised striae or vesicles, with a smooth central dorsal impression; aperture large, very wide; columella smooth, back pinkish flesh-colour, base whitish.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 541.

_Cypraea (Trivia) aperta_, Gray.

Hab. Cape of Good Hope.

Neither of the figures in Lister and Martini to which Lamarck refers for the illustration of this species can be possibly identified with his description. The former, as M. Deshayes has already shown, represents the _C. radians_, and there is very little doubt but that the latter is intended for the same species, to which the terms "globosâ, inflatâ, albido-carneâ, immaculâtâ, ventre convexât, aperturâ latissimât" do not apply. They apply on the other hand with such peculiar accuracy to the species under consideration, it is strange the confusion has never been detected by English writers on the genus.

Species 112. (Mus. Cuming.)

_Cypraea ovula_. Cypr. testâ ovato-centricosâ, inflatâ, labro dextro incrassato; nudique levigatâ, dentibus interoribus minimis, aperturâ latissimât; niveâ, aut rosaceo pallide tinctâ.

The oval Cowrey. Shell ovately ventricose, inflated, right lip thickened; smooth throughout, inner teeth very small, aperture very wide; snowy white, or faintly tinged with pink.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 533.

_Cypraea carneâ var_, Gray.

Hab. — ?

_Cypraea ovulata_ was the name first given to this shell by Lamarck, but finding, probably, that it had been already used by Gmelin in reference to the _C. cerrens_, he dropped the last syllable for the sake of distinction, though both terms are sufficiently corrupt. The species is a very characteristic one, and may be easily recognised by its smooth surface.
CYPÆA.

PLATE XXI.

Species 113. (Mus. Cuming.)

Cypæa Solandri. Cypr. testá ovata, subventricosa, basi lateribusque rotundatis, dorso medio impresso, utrique nodoso, costis et nodis diversgentibus, dentibus exterioribus minutissimis; cinereo-fuscâ.

Solander's Cowrey. Shell ovate, rather ventricose, base and sides rounded, back impressed down the middle, noduled on each side, with ribs diverging from the nodules, outer teeth very minute; ash-brown.

Gray; Sowerby, Conch. Illus. Cat. Cyprææ, no. 128. f. 43.

Hab. California.

This species may be easily distinguished from the Cypræa radians by its minute row of outer teeth, there being an intermediate one between each of those terminating the ribs: it is, moreover, distinct in form, being uniformly smaller and more rounded at the base. Mr. Sowerby says "it is impossible to know which of the two is the radians of Lamarck"; but I think Lamarck's expression "lateribus dilatatis depressis, ventre plano" fully decisive.

Species 114. (Mus. Cuming.)

Cypæa annulata. Cypr. testá oblongo-ovatâ, crostâ, solidâ, extrematibus subcrassostratis, lateribus basisque rotundatis, aperture subfiexuoso, angustâ, dentibus minutissimis, eburneâ, dorso maculis rotundatis laureis satunâ annulâtis, irregulariter pictâ.

The ringed Cowrey. Shell oblong-ovate, thick, solid, extremities somewhat rounded, aperture slightly flexuous, narrow, teeth very minute, concavity of the columella deep; ivory-white, back irregularly painted with round yellow spots encircled with rings of a deeper yellow.


Hab. Isle of Anuua, Pacific Ocean (on the reefs); Cuming.

Distinguished from all other species by its solid obesity and very characteristic style of painting.

Species 115. (Mus. Cuming.)

Cypæa Childreni. Cypr. testá cylindraceo-oblungâ, undique transversim crebrisostatâ, basi subdepressâ, aperturâ angustâ, dentibus minutis, dorso medio excitâ impresso, extrematibus rostratis, infra carinato-alatis; pallide lateo-fuscâcente, costis satis rotundâris.

Children's Cowrey. Shell cylindrically oblong, transversely closely ribbed throughout, base a little depressed, aperture narrow, teeth minute, back faintly impressed down the middle, extremities beaked, narrowly winged beneath; pale yellowish brown, ribs darker.


Hab. Isle of Anuua, Pacific Ocean (on the reefs); Cuming.

This is the only species at present known with the peculiar wing-like appendages, above described, at the base of the extremities.

Species 116. (Mus. Cuming.)

Cypæa cicergula. Cypr. testá ovata, turgidâ, dorso peculiariter elevato, granulosâ, medio sulco linearî impresso, apertura angustâ, dentibus subelongatis, extrematis rostratis, productis; fulvâ aut fulvo-aliâmente, dorso fusco irregulâris maculatâ, lateribus fusco-punctatis, basi maculis quaternis castaneis conspicuâ pictâ.

The chick-pea Cowrey. Shell ovate, turgid, back peculiarly elevated, granulous, impressed with a linear groove down the middle, aperture narrow, teeth rather elongated, extremities beaked, produced; yellow or fulvous white, back irregularly blotted with brown, sides dotted with brown, base conspicuously painted with four chestnut spots.

Linneus, Syst. Nat. (12th edit.) p. 1181.

Hab. Isle of Anuua, Pacific Ocean (on the reefs); Cuming.

The back of this species is peculiarly elevated and granulous, whilst the base presents a characteristic feature in the four chestnut spots.

Species 117. (Mus. Cuming.)

Cypæa radians. Cypr. testâ rotundulo-ovatâ, lateribus dilatatis, basi depressâ, extrematis rostratis, medio latissimo impresso, utrique nodoso, costis et nodis diversgentibus; cinereo-fuscâ, dorso maculis nigricante tincto.

The radiating Cowrey. Shell rotundately ovate, sides
dilated, base depressed, extremities blunt, back rather broadly impressed down the middle, nodose on each side, with ribs diverging from the nodules; ash-brown, back stained with a blackish blotch.

Hab. St. Elena, West Columbia (under stones); Cuming.
Characterized by its depressed growth and dilated margin.

Species 118. (Mus. Cuming.)
CYPREA GLOBULUS. Cypr. testá cylindraceo-oblongá, dorso lavi, sube obsoletó ant unlo, aperturá angustá, dentibus subelongatis, extremitábs rostráts, productis; dorso fulvo-luteo, fusco subobscurè punctatō, lateribus extremitatibusque rufo-aurorentis.
The little globe Cowrey. Shell cylindrically oblong, back smooth, dorsal groove obsolete or entirely wanting, aperture narrow, teeth rather elongated, extremities beaked, produced; back fulvous yellow, rather obscurely dotted with brown, sides and extremities reddish orange.

LINNÉUS, Syst. Nat. (12th edit.) p. 1181.
Hab. East Indies.

Fully distinguishable from the Cypraea cicercula, to which it so nearly approximates in general appearance, by the absence of the dorsal groove, the granules, and the four chestnut spots of the base; it is also of a more oblong cylindrical form.

Species 119. (Mus. Saul.)
CYPREA MAUGERIÆ. Cypr. testá subpyriformi-ováta, latere dextro marjínus, posticó subproducta, undique transversís creberrimé costátá, costís subirregulariter flexuosís, interstitiis scabriusculis, dorso medio lineari-impressó; fulvo-rosoaé, dorso maculá grandí fusco-vente obscurè tiñíto, latere dextro rosaceo.

Mauger’s Cowrey. Shell somewhat pyriformly ovate, right side margined, a little produced posteriorly, transversely very closely ribbed throughout, ribs somewhat irregularly flexuous, interstices roughish, back impressed down the middle with a narrow groove; fulvous rose colour, back obscurely stained with a large faint brown blotch, right side pink.

GRAY; Sowerby, Conch. Illus. Cypræidæ, no. 111. f. 30.
Hab. Gallapagos Islands; Cuming.

An extremely delicate species of which the fine example here figured from the collection of Miss Saul is larger than any other specimen I have seen.
CYPÆA.

PLATE XXII.

(All magnified to twice their length except Fig. 122 and 124.)

Species 120. (Mus. Cuming.)

*CYPÆA GOODALLI.* Cypr. testa oblongo-ovata, lateribus submarginitatis, basi depressa, dentibus parvis; nivea, dorso maculae gradii irregulares aurantio-fuscæ pictæ, lateribus fusco-punctatis.

GOODALL’s COWREY. Shell oblong-ovate, sides slightly marginated, base depressed, teeth small; snowy white, painted with a large irregular orange-brown blotch, sides dotted with brown.

RAY; Sowerby, Conch. Illus. Cypreae, no. 76, f. 16.

A delicate snowy white shell conspicuously stained on the back with a large square irregularly reticulated bright orange-brown blotch.

Species 121. (Mus. Gaskoin.)

*CYPÆA CONTAMINATA.* Cypr. testa subpyriformi-ovata, lateribus submarginitatis, dentibus parvis, extrematis subproductis, reflexis; dorso carneo-fuscescence subobscuræ fasciata, minutissimæ pallidæ fusco-punctata, maculæ fuscæ centralis, lateribus basi fusco conspicuis punctatis.

THE DISTAINED COWREY. Shell somewhat pyriformly ovate, sides slightly marginated, teeth small, extremities rather produced, reflexed; back fleshy brown, obscurely banded, dotted with pale brown, with a central brown spot, base and sides conspicuously dotted with dark brown.

RAY; Sowerby, Conch. Illus. Cypreae, no. 96, f. 21.

Tab.——?

An interesting well-defined species in the collection of Mr. Gaskoin of which Mr. Cuming also possesses an example.

Species 122. (Mus. Brit.)

(Natural size.)

*CYPÆA GASKOINI.* Cypr. testa subobovato-ovata, solitiussecula, lateribus incrassatis, marginitatis, dentibus fortississulis; dorso fulvo-stramineo, occelis albidis, fuscæ anulatis, parviscellis, sparisi ornato, lateribus castaneo-punctatis, basi albæ.

GASKOIN’S COWREY. Shell somewhat shortly ovate, rather solid, sides thickened, marginated, teeth rather strong; back yellowish straw-colour, sparingly ornamented with rather small white eyes, encircled with pale brown rings, sides dotted with chestnut, base white.

REEVE, Pro. Zool. Soc. 1846. Hab.—?

This interesting species of which I have seen two specimens, one in the British Museum and one in the collection of Mr. Gaskoin, partakes of the characters of the *Cyprea Cumingii* and *esontropia*, bearing such a relation to the former as the latter does to the *C. cribaria*. The sides are stoutly thickened and spotted like the *C. esontropia*, and the back is covered with the same kind of small clear ringed eyes as the *C. Cumingii*. As the accompanying figure has rather a diminutive appearance in comparison with the surrounding species, it may be as well to call attention to the circumstance of the outer figures of this plate being considerably magnified, whilst the two in the centre are of the natural size. I dedicate it with a great deal of pleasure to J. S. Gaskoin Esq., a gentleman to whom we are much indebted not only for the liberal use of a collection of *Cyprea* exhibiting almost every imaginable variety of growth and colour of each species, but for his essential services in working out the small ribbed kinds which constitute Mr. Gray’s genus *Tricia*.

Species 123. (Mus. Cuming.)

*CYPÆA MARGARITA.* Cypr. testa pyriformi-ovata, lateribus submarginitatis et foraminatis, extrematis turritatis, productis, aperture subflexus, angulatis, dentibus parvis; pallide striatæ; dorso occelis albis grandibus parvisque, lineis dorsali pallide flexuosis, profuso ornato, basi cuneata, immaculata.

THE PEARL COWREY. Shell pyriformly ovate, sides slightly marginated and pitted, extremities beaked, produced, aperture rather flexuous, narrow, teeth small; pale straw-colour, back profusely ornamented with large and small white eyes, with a pale flexuous dorsal line, base ivory white, unsotted.


February 1846.
Hab. Isle of Annan, Pacific Ocean (on the reefs); Cuming.

This extremely delicate and graceful species appears to have been known to ‘old Humphrey’ as ‘The pearl-porcelain Cowrey’. The peculiarity in its style of painting is that there are two distinct systems of spots of different magnitude, which are not cirecled with rings.

Species 124. (Mus. Gaskoin.)
(Natural size.)

Cypraea cinerea. Cypr. testa ovato-ventricosa, interdum oblonga, lateribus submarginatis, dentibus brevissimis; dorso cinereo-fusca, trifasciato, punctis oblongis atris interdum longitudinaliter picto, lateribus carnis, punctis atris numerosis peculiariter confusis inquinatis, basi floricante, dentibus interstitiis rosse-carneis.

The ash Cowrey. Shell ovately ventricose, sometimes oblong, sides rather thickened, teeth rather short; back ash-brown, three-banded, sometimes longitudinally painted with jet black oblong dots, sides flesh-tinted, peculiarly confusedly stained with numerous jet black dots, base yellowish, interstices between the teeth pinkish flesh-colour.

Eadem, Cypraea sordida Lamark.
Hab. West Indies (under stones); Guilding.

The black-dotted painting which so strongly characterises this species is perhaps less constant than the pinkish flesh-colouring between the columnar teeth, of which I have invariably noticed indications where the first-mentioned character was wanting.

Species 125. (Mus. Cuming.)

Cypraea Beckii. Cypr. testa subpyriformi-ovata, lateribus submarginatis et fasciatis, extremis latissimis subrotundis et reflexis, apertura subflammea, dentibus parvis, fortissimis; fulci, dorso ocellis grandibus parvisque albis ornato, ocellis grandibus castaneo purpureis, interdum castaneo-punctatis, basi ad dentes exteriros castaneo lineo-punctatis.

Beck’s Cowrey. Shell somewhat pyriformly ovate, sides slightly margined and pitted, extremities a little beaked and reflexed, aperture rather flexuous, teeth small, rather strong; fulvous yellow, back ornamented with large and small white eyes, of which the large are pupilled with chestnut, sides dotted with chestnut, linearly dotted at the outer teeth with chestnut-brown.


The C. Beckii approximates very closely in form to the C. margarita, and like that species it has two distinct sizes of white eyes; it differs, however, in having the range of larger spots pupilled with chestnut brown, the sides dotted with chestnut-brown, and the outer teeth each marked on the base with a chestnut-brown linear dot. In a specimen kindly remitted to me by M. Deshayes the form is less pear-shaped and the extremities more obtuse.

Species 126. (Mus. Cuming.)

Cypraea irrata. Cypr. testa ovato-oblunca, lateribus submarginatis, basi depresse-planis; dorso pallido parius parce-cinereolacento, obscuré fuscato, punctis numerosis fulvo-fusco, latera versus satureiaribus, copiosis ocellis a spero, basi albidis, immaculatis.

The Redewed Cowrey. Shell ovately oblong, sides slightly margined, base depressely flattened; back pale purple-blue, obscurely banded, copiously sprinkled with fulvous brown spots which are darker in colour towards the sides, base whitish, unspotted.

Hab. Elizabeth Island (on the sands); Cuming.

It would be difficult to confound this with any other species, so peculiar is it both in form and style of colouring.
CYPREA.

PLATE XXIII.

(All magnified to twice their natural length).

Species 127. (Mus. Cuming.)

CYPREA Sanguinea. Cypr. testā ovațā, dorso elevatō, lateribus dilatatīs, radiatīa costatā, impressiōne dorsali eix nullā; nigricante-purpureo-fusco, dorso maculā sanguinēd, utrinque altīd, medio ēxcento.

The blood-stained Cowrey. Shell ovate, back elevated, sides dilated, radiately ribbed, with scarcely any dorsal impression, blackish-purple-brown, back stained in the middle with a blood-red spot, whitish on each side.

Gray; Sowerby, Conch. Illus. Cypræidæ, no. 115. f. 32.

Tricīs sanguinēa, Gray.

Hab. St. Elena, West Columbia (under stones); Cuming.

A very dark purple-brown shell with a blood-stain, whitish at each end, in the middle.

Species 128 (Mus. Cuming.)

CYPREA CALIFORNICA. Cypr. testā ovațā, subglobosā, lateribus eix dilatatīs; adique costatā, costis subdistantibus, impressione dorsali eix nullā; purpureo-fusco, dorso medio pallidō, dentibus altīdis.

The Californian Cowrey. Shell ovate, rather globose, sides scarcely dilated; ribbed throughout, ribs rather distant, with scarcely any dorsal impression; purple-brown, back pale in the middle, teeth whitish.


Tricīs Californica, Gray.

Hab. California.

Distinguished from the preceding species by its smaller and more rounded form, whilst the ribs are stouter and wider apart.

Species 129. (Mus. Cuming.)

CYPREA Europæa. Cypr. testā ovațā, subcentricā, laterē dextro submarginato; transversā adique crebris costatā, impressione dorsali nullā; carneo-fusco, fissore, prāsepē prope apicem, sparsīa maculātā, basi alīd.

The European Cowrey. Shell ovate, somewhat ventricose, right side slightly margined; transversely closely ribbed throughout, with no dorsal impression, flesh-tinged fulvous, sparingly spotted, especially near the apex, with brown, base white.


Cyprea coccinella, Lamarck.

Tricīs Europēa, Gray.

Varietas pallida immaculata.

Cyprea arctica, Montagu.

Testa juvenis pelliculae.

Cyprea bullata, Montagu.

Hab. Shores of Britain, &c.

The spots of this well-known species are very undefined; it may, however, be observed, that it is generally most deeply stained in the vicinity of the apex.

Species 130. (Mus Gaskoin.)

CYPREA LABIOSA. Cypr. testā rotundato-ovațā, subdepressa, lateribus dilatatis et marginatis, extensusitibus retusa; dorso medio sulcata, utriquoque nodosa, costis fortissimis, subdistantibus, et nodis divergentibus; dorso carneo-fuscescente, maculis senis nigricantibus ornatu, lateribus basique cinereo-fuscis, costis albicantibus.

The full-lipped Cowrey. Shell roundately ovate, rather depressed, sides dilated and margined, extremities retuse, back grooved down the middle, noduled on each side, with rather strong and somewhat distant ribs diverging from the nodules; back fleshly brown, ornamented with six dark spots, sides and base ash-brown, ribs whitish.


Hab. ——?

I am rather inclined to think, with M. Gaskoin, that this shell is distinct from the C. pediculus; without reference to its more depressely dilated form and difference of colour, the ribs are much fewer in number, and developed with greater force and regularity.

Species 131. (Mus. Cuming.)

CYPREA PEDICULUS. Cypr. testā ovațā, subcentricā, lateribus submarginatis, dorso medio sulcato, utriquoque nodulō, costis subtilissimis numerosis et nodulis divergentibus; carneo-albicantae, fuscōscentae, prāsepē ad

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CYPEA.—Plate XXIII.

latera, marmorata et punctata, dorso maculis senis nigricantibus ornato.

The louse Cowrey. Shell ovate, rather ventricose, sides slightly margined, back grooved down the middle, nodulous on each side, with numerous rather fine ribs diverging from the nodules; fleshy white, marbled and dotted, especially towards the sides, with pale brown, back ornamented with six black blotches.

Cyprea sulcata, Dillwyn. Trivea pediculus, Gray.

Hab. West Indies.

Linneus may have confounded two or three species under this head, but I think his specific name should be reserved for that which is without doubt the type of the group.

Species 132. (Mus. Cuming.)

Cyprea formosa. Cypr. testa globosa, tenui, subinflata, lateris dextro submarginato, undique transversim creberrimè tenuicostata; roseo-aliuncte, sericeo-nitente, dorso carneo-fuscescente pallidissimè tinto, basi alba.

The beautiful Cowrey. Shell globose, thin, rather inflated, right side slightly margined, transversely very closely finely ribbed throughout; pinkish white, shining like silk, back very faintly stained with fleshy brown, base white.

Hab. Cape of Good Hope.

A very characteristic species distinguished from the C. Europea by its globose and more inflated growth and finer ribs, whilst there is a marked peculiarity in the delicacy of its colouring.

Species 133. (Mus. Saul.)

Cyprea depauperata. Cypr. testa suborbiculari, depressa, lateribus dilatatis, subincrassati, extremitatis retusi, dentibus subtilibus, dorso medio lineari-sulcato, costis subdistantibus utrinque divergentibus; pallide cinereo-fusco, immaculata, basi carneo-tincta.

The impoverished Cowrey. Shell nearly orbicular, depressed, sides dilated, rather thickened, extremities retuse, teeth fine, back linearly grooved down the middle, with rather distant ribs diverging on each side; pale ash-brown, unspotted, base flesh-tinged.

Sowerby, Conch. Illus. Cypreaeae, no. 130. f. 49.
Hab. ?

Allied to the C. radians, but differing in that the dorsal groove is perfectly linear, without nodules on either side; and it is of a paler ash colour.
CYPREÆ.

PLATE XXIV.

(All magnified to twice their natural length.)

Species 134. (Mus. Gaskoin.)

CYPREÆ FUSCA. Cypr. testa ocelli, latere dextro subim-

The brown Cowrey. Shell ovate, right side slightly

The snow-white Cowrey. Shell globose, extremities

The small-tooth Cowrey. Shell somewhat elongately

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neat bands of waved orange-brown lines, extremities tipped on each side with pink.


Hab. Isle of Ticao, Philippines; Cuming.

Care should be taken not to confound a small variety of the *C. fiabriata* with this species, which is distinguished from it by its attenuated form, minute teeth and peculiarity of colouring.

Species 140. (Mus. Gaskoin.)

**Cyprea oryza.** *Cypr. testá ocatá, latere dextro vix marginato, transversim undique tenuissimè costatá, costarum interstitiis peculiariter scabris, impressione linearì dorsali; nivéa.*

**The rice-grain Cowrey.** Shell ovate, right side scarcely margined, transversely very finely ribbed throughout, interstices between the ribs peculiarly rough, with a linear dorsal impression; snowy white.

Lamarck, Anim. sans vert. (Deshayes’ edit.), vol. x. p. 543.

*Cyprea scabriuscula,* Gray.

Varietates?

*Cyprea hordacea* and *intermedia,* Kiener.

Hab. Isle of Ticao, Philippines; Cuming.

Of a rounded oblong oval form, the ribs being very fine, and the interstices of a peculiarly roughish character.
Species 141. (Mus. Gaskoin.)

**Cypræa rubescens.** *Cypr. testâ globoso-ovâtâ, latere dextro incressato, marginato, transversim undique tenuïcostâtâ, columnellâ conceçata, acutântâtâ, impressione dorsali nullâ; roseâscenâtâ vel pallidâ roseâ, basi alibancante.*

**The reddish Cowrey.** Shell globosely ovate, right side thickened, margined, transversely finely ribbed throughout, columnella hollow, sharp-angled, with no dorsal impression; pale red or pink, base whitish.


**Hab.** Galapagos Islands (under stones); Cuming.

The *C. rubescens* is rather a solid shell than otherwise.

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Species 142. (Mus. Cuming.)

**Cypræa suffusa.** *Cypr. testâ oblongo-ovâtâ, latere dextro extremitatibusque marginatis, transversâ et undique tenuïcostâtis, costis vis graminis, salvo dorsali consipicâ; roseo-albicante, costis fuscâ promiscue variëgâtis et punctatis, extremitâtibus roseâs, basi albêccâ.*

**The sprinkled Cowrey.** Shell rather oblong-ovate, right side and extremities slightly thickened and margined, transversely finely ribbed throughout, ribs scarcely granose, with a conspicuous dorsal groove; pinkish-white, ribs promiscuously variegated and dotted with extremities pink, base whitish.

Gray; Sowerby, Conch. Illus. Cypræadeæ, no. 126, f. 41.

**Cypræa aramudina, Duclos.**

**Hab.** Gallapagos Islands; Cuming.

Distinguished by the sprinkled brown painting of the ribs.

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Species 143. (Mus. Cuming.)

**Cypræa Pacifica.** *Cypr. testâ oblongo-ovâtâ, latere dextro submarginata, extremitatibus leviter productis, basi depressâ; transversâ et undique costâtâ, costis tenuïbas subcorrugâtis, salvo dorsali consipicâ; dorsi pallidâ cinnarœo und fuscæscens, punctis maculisque fuscis ad stranque latiss salvo dorsalis alternâtibus suffusâ, extremitâtibus roseâs, basi alibancante.*

**The Pacific Cowrey.** Shell oblong-ovate, right side slightly marginated, extremities a little produced, base depressed, transversely ribbed throughout, ribs fine, rather wrinkled, with a conspicuous dorsal groove; pale ash or very light brown, back suffused with brown dots and spots alternating on each side the dorsal groove, extremities pink, base whitish.


**Hab.** Gallapagos Islands (under stones); Cuming.

Well characterized by the alternating spots.

---

Species 144. (Mus. Gaskoin.)

**Cypræa pulex.** *Cypr. testâ ovâtâ, latere dextro submarginata, transversâ et undique subtilissimâ costâtâ, costis supra lecithus vel obsoletis, impressione dorsali vis nullâ; dorso cinnarœo-fusce, lateribus basique albis.*

**The flea Cowrey.** Shell ovate, right side a little marginated, transversely very finely ribbed throughout, ribs smooth or obsolete at the top with scarcely any dorsal impression; back ashly brown, sides and base white.


**Hab.** Mediterranean.

This well-known species exhibits a great deal of character in the smoothness of the dorsal ribs.

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Species 145. (Mus. Gaskoin.)

**Cypræa rubinicolor.** *Cypr. testâ globoso-ovâtâ, cressinovâtâ, latere dextro incressato marginato, extremitatibus Obtusis-productis, transversâ et undique costâtâ, costis subtilissimâs impressione dorsali nullâ; dorso cinnarœo, extremitatibus pulchârâ roseo-rubris.*

**The red-coloured Cowrey.** Shell globosely ovate, rather thick, right side thickened, margined, extremities obtusely produced, transversely ribbed throughout, ribs very fine, with no dorsal impression; pinkish flesh-colour, extremities prettily tinged with rose-red.


**Hab.** — — ?

This is without doubt a very distinct species; it may have somewhat the form of the *C. sangivina*, but in colour and in the structure of the ribs it is quite dissimilar.

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Species 146. (Mus. Cuming.)

**Cypræa quadrupunctata.** *Cypr. testâ rotundata-ovâtâ, extremitatibus obtusis, transversâ et undique subtilissimâs costâtâ, salvo lineari dorsali; pallidâculo-roseâ, dorso punctis rubred aureâs quadriâs consipicâ, quarnus duplum ad stranque latiss salto dorsalis alternâtibus, ornato.*

**The four-dotted Cowrey.** Shell rotundately ovate, extremities obtuse, transversely very finely ribbed, with a linear dorsal groove; transparent rose, back ornamented with four conspicuous red dots, two on each side the dorsal groove, alternating one with the other.


**Cypræa rotunda, Kiener.**

**Hab.** Philippine Islands; Cuming.

Easily distinguished by the four dorsal red dots.

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Species 147. (Mus Gaskoin.)

CYPREA SUBROSTRATA. Cypr. testâ rotundato-orátâ, laterâ dextro marginato, extrematibus obtuso-rostratis; transversâ subtilissimâ costâtâ, sulco dorsali subconspicuo; nudique nigricante-fuscâ.

The slightly-beaked Cowrey. Shell rotundately ovate, right side margined, extremities obtusely beaked; transversely very finely-ribbed, with a rather conspicuous dorsal groove; blackish brown throughout.


Hab. — ?

A dark chocolate-brown species distinguishable by its rounded form and slightly beaked extremities.

Species 148. (Mus Gaskoin.)

CYPREA TREMEZA. Cypr. testâ ovâtâ, extrematibus subattenuatis et rostratis; transversâ subtiliter costâtâ; albâ, roseo-vicidâ variegâtâ et muculâtâ.

The rose-spotted Cowrey. Shell ovate, extremities, somewhat attenuated and beaked; transversely finely ribbed; white, stained and variegated with bright rose.

DUCLOS, Magasin de Zoologie, 1833.

CYPREA EZYNA, Gray.

Hab. West Indies ; Duclos.

An extremely characteristic species, delicately painted with rich rose-pink.

Species 149. (Mus Gaskoin.)

CYPREA NAPOLINA. Cypr. testâ ovâtâ, laterâ dextro incrassato, marginato, extrematibus subproductâs; transversâ nudique costâtâ, costis crêbris, subobesis, sulco dorsali nullâ; albâ, dorso patidissimâ fuscenscunt, maculis duobus tribusve cinereo-nigricantibus ecilitissimâ luteo.

The faintly-spotted Cowrey. Shell ovate, right side thickened, margined, extremities a little produced, transversely ribbed throughout, ribs close-set, rather stout, without any dorsal groove; white, back very pale brown, stained with two or three faint ashy-black spots.

DUCLOS; Kiener, Icon. Coq. viv. pl. 53. f. 3.

Hab. Senegal.

There is a peculiarity in the colouring of this species which, carefully observed, serves amply to distinguish it from the C. Europaea, with which it is nearly allied.

Species 150. (Mus. Saul.)

CYPREA PULLA. Cypr. testâ rotundo-ovâtâ, subventricosa, extrematibus subobtusis; transversâ subtiliter costâtâ; sulco dorsali nullâ; nigricantâ-fuscâ.

The brown-coloured Cowrey. Shell ovate, slightly ventricose, extremities, a little obtuse, transversely finely ribbed, with no dorsal groove; dark reddish brown.


Hab. — ?

Very like the C. subrostrata, but upon examination it will be found to be rather more oblong in form, and without any distinct dorsal groove; the colour is also of a more transparent character.

Species 151. (Fig. 151 and 154, Mus. Gaskoin.)

CYPREA CANDIDULA. Cypr. testâ gloioso-ovâtâ, lateribus subdilatatis, marginâ incrassatis; transversâ nudique costâtâ, costis fortibus, subconspicuis; nigreâ.

The little white Cowrey. Shell globose-ovate, sides somewhat dilated, thickened at the edge; transversely ribbed throughout, ribs strong, rather conspicuous; snowy white.


Hab. Mexico.

This interesting little species may be distinguished by the forcible character of the ribs; as a proof of its specific importance Mr. Gaskoin relates the circumstance of it having been almost simultaneously described in two other cities of Europe, in Paris by M. Duclos under the name of C. oriolus, and in Copenhagen by Dr. Beck under that of C. approximans.

March 1846.
Species 152. (Mus. Cuming.)

**CYPREA GLOBOSA.** *Cypr. testa peculiariter globosa, transversis costatâ, sulco lineari dorsali conspicuo; niveâ.*

The globose Cowrey. Shell peculiarly globose, transversely ribbed, with a conspicuous dorsal groove; snowy white.


**Hab.** —?

The globose pea-like form of this species, the smallest of the genus, is truly characteristic.

Species 153. (Mus. Gaskoin.)

**CYPREA PELLUCIDULA.** *Cypr. testa ovata, extremoattenuata et rostrata, transversis undique costatis, costis tenuibus, subirregularibus, sulco dorsali nullo; niveâ.*

The rather-pellicid Cowrey. Shell ovate, extremities somewhat attenuated and beaked, transversely ribbed throughout, ribs fine, rather irregular, with no dorsal groove; snowy white.


Species 154. (Mus. Gaskoin.)

**CYPREA PISUM.** *Cypr. testa globosa, ventricosa, latere dextro subincrassato; transversis undique costatis, costis numerosis, angustis, prominentibus, sulco dorsali subconspicuo; carneo-fuscescente.*

The pea Cowrey. Shell globose, ventricose, right side rather thickened, transversely ribbed throughout, ribs numerous, narrow, prominent, with a rather conspicuous dorsal groove; pale fleshy brown.


A very distinct and characteristic species, approaching nearest in general aspect to the *C. formosa*, for which I have been indebted to Mr. Gaskoin since the accompanying plate was engraved. The shell represented at Fig. 154 is the *C. candidata.*

**Hab.** South Pacific.

A new snowy white species approximating in form to the *C. tremaea*; it differs, however, in being rather more gibbons, and in having a greater number and finer ribs, without any dorsal impression.
So different is the appearance presented by the Cyprea in an early stage of growth to that which they assume at a more advanced period, that I have thought it necessary to figure a few of the most interesting species during the Bulla-like state of their existence; that is, when the columella shows itself most distinctly to be the axis of growth, and before the outer lip is inflected or exhibits any indication of teeth. As of form, so also are there differences of colour and design; and the changes in both instances are very dissimilar. The following series includes some of the most remarkable.

**Cyprea Mauritiana.** *Fig. 1 c.* Pale buff brown, encircled with three broad bands of darker brown clouded waves, the waves of the posterior band striking out of the suture; columella white; interior pale purple. Spire acuminated.

**Cyprea Argus.** *Fig. 8 b.* Pale yellowish fawn colour, encircled with three or four narrow enlarging bands, very irregularly stained here and there with oblong-square spots of which there are no traces in the adult; columella white. Spire peculiarly flattened.

**Cyprea Scottii.** In its first state (*Fig. 10 b* and *c*) a pure bright uniform milky orange, with the columella ivory-white; it then assumes a blueish tinge disposed in obscure bands, and begins to show (*Fig. 10 d*) a few bright tortoise-shell brown blotches, as exhibited in the adult, before there is the slightest inflexion of the lip, or any indication of teeth. This is an arrangement different to that of most of the Cowries, in which the teeth are chiefly developed before there is any appearance of the spotted pattern with which the adult is ornamented. Spire prominent.

**Cyprea Tigris.** In its first state (*Fig. 12 c*) a clear rather dark chestnut brown, encircled with faintly shaded bands, with the columella white; the chestnut coating then disappears by a superincumbent layer of cream coloured enamel, encircled with five bands of close set oblong blueish-brown spots (*Fig. 12 d*), splashed irregularly with clouded stains of yellowish brown. Spire rather depressed.

**Cyprea Exanthema.** *Fig. 16 b.* An uniform fawn brown, encircled with five broad bands of a darker colour, no appearance of spots, waves, or any description of marking; interior rich purple; columella white. Spire acuminated.

**Cyprea Carneola.** *Fig. 19 b.* Colour and bands exactly as in the adult; columella white.
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**ERRATA.**

Plate 1. p. 2.—for "C. aurora," read "C. aurantium."
Species 3. *C. reticulata.*—add as synonyme: *C. maculata,* Barnes.
Species 20. *C. prinsps.*—A report has just reached me from Lyons that a second specimen of this remarkable shell has been received from the Red Sea, and deposited in the Museum of that city; I cannot, however, vouch for the correctness of it at present.
MONOGRAPH

OF THE GENUS

HALIOTIS.

"In all the liveries deck'd of summer's pride,
With spots of gold and purple, azure and green;
Or in their pearly shells at ease, attend
Moist nutriment, or under rocks their food." — Milton.
**HALIOTIS.**

**Plate I.**

**Genus Haliotis, Linnaeus.**

*Testa ovata, aurifornis, planata, spirata, brevissimâ, laterali, peculiariter depressa; intus margaritacea, pulcherrimâ prisumatica, extus rugosa-costata aut corrugata, rarior, latero, lateri sinistro plus minusque angulato, foraminem serie regulari ad angulum perforato, nonnullis percisi; intrin sinistro inflexo, planulo, dextro simplici; aperturâ amplissimâ, propulsa.*

Shell ovate, ear-shaped, flat, spire small, very short, lateral, peculiarly depressed; pearly and very beautifully prismatic within, roughly ribbed or wrinkled without, rarely smooth, left side more or less angulated, perforated along the angle by a regular series of holes, some of which are open; left lip inflexed, flattened, right lip simple; aperture very large and wide open.

The genus *Haliotis* affords an unusual abundance of novelty from the circumstance of it never having been selected for the subject of an illustrated monograph; the species are, moreover, well defined, and may be easily determined by a careful examination of the variations of sculpture and arrangement of colours.

The *Haliotides* are interesting in form as being the most evolved and depressed of spiral shells, and they have been arranged with the *Chitons* and *Limpets* as exhibiting the nearest apparent affinity with the non-spiral Gastropods. They present also a singularity of structure in great measure analogous to the orifice in the shell of *Fissurella* or to the fissure in *Emarginula*. On the left side of the shell, in a direct curve parallel to the inflexed edge, is a row of equidistant perforations, made by the animal in its progress of growth for conveying the water to the breathing organs; the mantle is slit in that direction to a certain extent, and the water passes into the respiratory cavity through a tubular filament protruding from each hole. The number of pallial filaments being alike in the same individual throughout its several stages of growth, the shell mostly presents the same number of holes at all ages, filling up the hindmost orifice as a new one becomes formed at the margin. The *Siliqua* presents a similar modification of structure, and it has been also considered that the slit in *Pleurotomaria* is in some measure analogous.

The internal surface of the 'Ear Shells' is lined with a bright pearly nacre, which in most species is of remarkable iridescent brilliancy, glowing with all the colours of the rainbow; the attention must, however, be directed to the outer coating of the shell, for the discrimination of species, and it is with this view that the figures in the foregoing monograph are devoted mainly to external sculpture. There is certainly a striking variation of character in the nacre of different species, but the pattern of the inner surface is merely an indentation of the outer. The number of perforations varies in different species, but may be said to correspond in different individuals of the same species; where an exception occurs, it is that there is sometimes one, or at most two, less in the adult than in the young state; that is, when the animal arrives at maturity it continues to stop up one or two of the perforations in advance of any new one.

It is a curious circumstance in the geographical distribution of the *Haliotides* that few, if any, are to be found where *Chitons* abound; as if they exchanged places to a certain extent in the two hemispheres. There are a few species from California, but along the western coast of South America, where *Chitons* are most abundant, not any are found, and only one small species, the *H. pulcherrimus*, at any of the Islands of the Pacific. They inhabit the coasts of China, Japan, Ceylon, Mozambique, Cape of Good Hope, Borneo, and the Philippine Islands; but the greater number of species, and the most remarkable, are from New Zealand, and the continent of New Holland, displaying all the peculiarity of design which invariably characterizes the fauna of those isolated regions. With the well-known *Haliotis tuberculata* of the Channel islands, all are familiar. It is, however, a circumstance worth noting, that although such near neighbours, and comparatively abundant, especially at the island of Jersey, it is rarely collected on the coast of England.

The *Haliotides* are found at low water, attached to the under surface of masses of stone, and they fix themselves with great force to the rocks, by suction, on the least alarm.

Although the genus *Haliotis* was described by Lamarck as being "assez nombreux en espèces," only fifteen species appear to have been known to that illustrious naturalist; six were added to that number by M. Deshayes, in his new edition of the 'Animaux sans vertèbres,' and a few have been described by Mr. Gray and others in scattered memoirs.

April 1846.
With the rich and beautiful materials now before me, chiefly from the collection of Mr. Cuming, I shall probably be enabled to determine about eighty species; only a limited portion of them, however, were taken by that eminent traveller alive, as his researches have been chiefly confined to the Western Hemisphere.

Species 1. (Mus. Cuming.)

**HALIOTIS PULCHERIMA.**  
*Hal. testa orbiculari-ovata, convexa-ovata, spiræ verticulata, striis eructatis, interstitiis rugosis; spiræ subamplæ; foraminibus sensis percisis; interscenti-albæ, costae-lobatae maculae at variagata, in tubo aureo-albicans.

The very beautiful **HALIOTIS.** Shell obliquely ovate, rather convex, radiately ribbed, ribs strong, rather wide, nodosely wrinkled, interspaces rough; spire rather large; six perforations open; yellowish white, spotted and variegated with chestnut red; naeoc golden white.

**MARTYN,** Universal Conch. vol. ii. pl. 62.

**Hab.** Lord Hood’s and Grimwood Islands, Pacific Ocean; Cuming.

There is no green or blue either in the outer coat or naeoc of this species. The ribs are of a soft yellowish white, stained here and there with chestnut-red, and the pearly interior exhibits a faint golden hue.

Species 2. (Mus. Cuming.)

**HALIOTIS GLABRA.**  
*Hal. testa oblongo-ovata, convexa-planata, spiræ verticulata, striis eructatis, interstitiis rugosis; spiræ subamplæ; foraminibus sensis percisis; interscenti-albæ, costae-lobatae maculae at variagata.**

The smooth **HALIOTIS.** Shell oblong-ovate, convexly flattened, spire small; smooth, with a few radiating engraved striæ, left side finely ridged, six perforations open, rather small, left lip rather broad; dark olive green, angularly reticulated and variegated with pale yellowish green.

**CHEMNITZ,** Conch. Cab. vol. x. p. 311. pl. 166. f. 1602, 3.  
**Hab.** Australia; Dring, R.N.

M. Deshayes is perfectly correct in his views of this species, so admirably portrayed by Chemnitz. Figures 1607 and 8 of the ‘Conchylion Cabinet’ represent a species, hereafter to be described, unquestionably distinct both in form and colour from that under consideration; and the shell represented by Schubert and Wagner in the Supplement of that work, Fig. 3986, 7, as a variety of *H. glabra,* is also a very distinct species, subsequently described by Mr. Swainson under the name of *Haliotis Californica.*

Species 3. (Mus. Cuming.)

**HALIOTIS CUNNINGHAMII.**  
*Hal. testa ovata, leni, maxima, concon-crepata, latere sinistro angulato, ad angulum perforata, foraminibus subtabulosis, sensis, (in testa jucundis sepulcros vel octonis) percisis; oblique modato-plicata, striis elevatis minima corrugatis radiique sculptata, margine sinistro laxatuer, planato; extus rubro-ferrugineo, viridifuscoque variagata, in tubo albicans.

**CUNNINGHAM’S HALIOTIS.** Shell oval, thin, very large, concavely depressed, left side angulated, perforated at the angle, perforations somewhat tabular, six (in the young shell seven or eight) open, obliquely undulated pleated, sculptured throughout with minutely wrinkled striae, left margin rather broad, flattened; outside reddish brown, variegated with green and darker brown, inside whitish.

**GRAY,** Appendix to King’s Voyage (Narrative of a Survey of the Coast of Australia, 1827), vol. ii. p. 494.

**Hab.** Australia and New Zealand.

Three excellent figures of this magnificent species have been recently published by Dr. Phillippi in his valuable work on Species of Shells ‘Abbild, und Besch. Conch.’ for the *Haliotis nacosa* of Martyn, Univ. Conch. vol. ii. pl. 63, from which it differs materially both in form and colour. It was described by Mr. Gray nearly twenty years ago in the work above quoted, and I have had the pleasure of identifying the splendid shell here figured, with a young specimen in that gentleman’s private cabinet, having the name of Mr. Allan Cunningham, the indefatigable Botanist of that Expedition, attached to it in Mr. Gray’s handwriting. It is a very large thinish conically flattened shell, with the left side rather sharply angulated, and the outer surface finely sculptured throughout with wrinkled striae, a good distinctive character to which I attach some importance, and which is conspicuously developed in specimens of different stages of growth now before me. The colour is a light rusty red, variegated with flame-like patches of dark brown, with a little green intermingled, the naeoc of the interior being of a rather pallid hue.
HALIOTIS.

Plate II.

Species 4. (Mus. Cuming.)

Haliothis varia. Hal. testa ovato-ablongâ, depresso-concava, spirâ humili; oblique tumido-nodosâ, spirâlifer erëbilibudâ, lîris calde irregularibus, foraminibus sesìs percís; vîrîdî ant olivaceo-fusco luteoque diversimodo radiâs variegâté, internus argentâtê.

The variegated Haliotis. Shell ovately oblong, depressed convex, spire low, obliquely tumidly nodose, spirally closely ridged, ridges very irregular, six holes open; diversely radiately variegated with greenish or olive-brown and yellow; nacre silvery.


Hab. Philippine Islands; Cuming.

A good distinguishing mark in this species are the curious swollen nodules, ranging across the shell in oblique waves, though sometimes a little obscure. The variegated yellow and olive-green colour is mostly disposed in alternate enlarging stripes striking out from the nucleus of the spire. Mr. Cuming found the II. varia abundantly distributed throughout the Philippine Islands.

Species 5. (Mus. Cuming.)

Haliothis rubicunda. Hal. testâ suborbiculâri-ovatâ, tenìculâ, medio concavo-depressâ; laterâ sinistro tricosato, costâ externâ tuberculâtâ, scabrosâ; medianâ tubiferâ, perforatâ, foraminibus quinque sesìs percís, internâ tenuïdâ, conpignâ, rugoso-stratâia, lamellis tetritâbus undulato-stratis erectis inter spiram et costam internam concentricâ dispositionis; externo rubrocorallo saturâtâ, internus irridescentem, labi dextri lioho internus carallo-rubro.

The red-tinged Haliotis. Shell somewhat orbicularly ovate, rather thin, concavely depressed in the middle, left side three-ribbed, the outer rib tuberculated and scabrous, the middle rib tubiferous and perforated, six to seven of the perforations open, the inner rib swollen, conspicuous, roughly striated, with thin lamellae concentrically arranged between the spire and the inner rib; exterior reddish or variegated olive and green, interior very beautifully iridescent.


Padolus rubicundus, De Montford.

Padolus scalaris, Leach.

Haliotis tricostalis, Lamarck.

Haliotis canaliculata, Schubert and Wagner.

Hab. Rotten Nest Island, Swan River Settlement; Lieut. Preston, R.N.

The structure and symmetrical arrangement of this species is truly elegant; and highly characteristic of the beautiful natural productions of the country of which it is an inhabitant.

Species 6. (Mus. Cuming.)

Haliothis rufescens. Hal. testâ ovatâ, convesso-depressâ, erussioescentâ, spirâlifer ârâtâ, lîris mixtis irregularibus; oblique undulato-plicâtâ, plecis grandibus tenuïdâs; foraminibus subamplis, tubulosis, quadrerns tantum perciis; externo carallo-rubro saturâtâ, internus irridescentem, labi dextri liioho internus carallo-rubro.

The coral-red Haliotis. Shell ovate convexly depressed, rather thick, spirally ridged, ridges minute, irregular; obliquely wave-plicated, plates large, swollen; perforations rather large, tubulous, four only open; outside deep coral-red, inside iridescent, inner edge of the right lip coral red.

Swaïnson, Appendix to Bligh Catalogue, p. 2.

Hab. Ceylon; Dr. Sibbald.

A fine dark coral-red species growing in large oblique swollen undulating waves. "In proportion as the back of this species is worn down," says Mr. Swainson "the colour becomes of a bright red," an observation very significant of its real character.

April 1846.
Haliotis.

Plate III.

Species 7. (Mus Taylor.)

Haliotis rugoso-plicata. Hal. testa oblongo-ovata, antecè subattenuata, valde convexa, spiraliter striata, obliquè rugoso-plicata, foraminibus septrais pervis; olivaceo-ciridescente, rufo pallide radiata.

The rough-plaited Haliotis. Shell oblong-ovate, a little attenuated anteriorly, very convex, spirally elevated ridged, obliquely rather pliected, seven of the perforations open; pale olive green, faintly radiated with red.


Haliotis australis, Gmelin, Lamarck.

Hab. New Holland; Capt. King.

Although a compound specific name is not quite in accordance with the modern rules of nomenclature, I cannot think that any hitherto given should be abandoned.

Species 8. (Mus. Cuming.)


The Kamtschatka Haliotis. Shell ovately oblong, spirally striated and ridged, ridges flatly obtuse, rather distant, transversely obliquely furnished with conspicuous waved swellings, left side rather broadly grooved, perforations rather swollen, large, four only open; exterior tessellately variegated with bright red and green, spiral ridges artienced with red and white.


Hab. Oonalaska, near Kamtschatka, Northern Archipelago; Jonas.

This very beautifully painted shell has more the appearance of a tropical than a northern species, for it presents the brightest display of colours of any of the genus. The entire surface consists of wavy swellings, variegated in a somewhat tessellated style with dark coral red and bright verdigris green, over which the spiral ridges pass here and there articulated with red and white.

Species 9. (Mus. Cuming.)

Haliotis splendens. Hal. testa ovata, convexo-depressa, nudique spiraliter lirata, liris crebris regularibus subobtusi, nonnullis allis latiobis, foraminibus quinis pervis; extus aenuia-ciridescente, articulis albovittatis spiram prope interdum notata, epidermide flesco fusco indatu, iidus corneae viridine, nigricante subulato, pulcherrimè iridescente.

The splendid Haliotis. Shell ovate, convexly depressed, spirally ridged throughout, ridges close-set, regular, rather obtuse, some broader than others, five of the perforations open; outer surface of the shell verdigris green, sometimes marked near the spire with whitish articulated markings, covered with a brown epidermis, inner surface very beautifully iridescent with blue and green clouded with black.


Hab. California.

This is the large species imported from California, the richly coloured polished surface of which is used for the ornamental work of various articles of manufacture. It is not referable to any of the species mentioned by Lamarck, and although familiarly known to collectors by the above name I cannot learn upon what authority it has been used.

April, 1846.
HALIOTIS.

Plate IV.

Species 10. (Mus. Cuming.)

Haliotis Roei. *Hal. testa suborbicular-ovata, depressa-plana, spiraliiter costata et lirata, costis lirisque alternantibus, peculiariter crebrisubrussatis, foraminibus parvisuscis, octonis arcuatis, octonis arcuatis perennis; extus vivide cocineo-rubro ant olievero-fuscis, raditatis albinae aureatae, intus spiraliiter sulcata, pulchre irridescente.*

Roe's Haliotis. Shell somewhat orbicularly ovate, depressely flattened, spirally ribbed and ridged, ribs and ridges alternating; peculiarly closely scabrous, perforations rather small, eight or nine open; exterior bright scarlet red, radiately marbled with white, interior spirally grooved, beautifully iridescent.

Gray, Appendix to King's Voyage (Narrative of a Survey of the coast of Australia, 1827), vol. ii. p. 493.

Haliotis scabricosta, Menke.

*Hab. New Holland; King, Menke.*

This very interesting species was originally collected during Cpt. King's Survey of the coast of Australia, and named by Mr. Gray in honour of Lieut. Roe of that Expedition in his Appendix to the 'Narrative of the Voyage' above referred to. M. Menke not being cognizant of this book described the species in his *Moll. Novæ Hollandiae* under the name of *H. scabricosta,* and Dr. Philippi has reproduced it under the same name in his 'Abbild. und Besch. Conch'.

The external sculpture of the *Haliotis Roei* consists of a number of alternating ribs and fine ridges, composed of irregular scales closing immediately one upon the other.

Species 11. (Mus. Cuming.)

Haliotis Marle. *Hal. testa ovata, depressissimulata, spiraliiter sublateralis; spiraliiter costata, costis depressis, perennis, oblique vix plicatis, supra unis-sulcatis, interdum etiam excurvatis, foraminibus subamplissimis, quinis perennis; extus auranti-spadiceo variegata, intus subargentea.*

Marle's Haliotis. Shell ovate, rather depressed, spire nearly lateral; spirally ribbed, ribs depressed, very broad, slightly obliquely plicated, upper surface engraved with one or two grooves, interstices between the ribs hollow, holes rather large, five open; exterior tinged with orange fawn, interior rather silvery.


Haliotis deaata, Jonas.

*Hab. —?*

This interesting species was named some twenty years since by Mr. Gray in honour of his kind-hearted and accomplished lady, so well-known to conchologists by her spirited etchings of the Mollusca. It is so unlike any other species of the genus that no one can fail to admire it. The surface between the row of perforations and the spire, is characterized by about half a dozen peculiarly broad depressed ribs, the interstices between which are excavated into many hollow channels; and down the flattened summit of each rib are one or two faintly indented grooves.

I have not as yet heard of more than three specimens, that in the possession of Mr. Cuming here figured; one in Mr. Gray's collection; and one in the collection of Dr. Jonas of Hamburgh, to whom my thanks are due for the trouble he has taken in forwarding me drawings of it. Although I am unable to adopt that gentleman's name for this species, I feel equally indebted to him for his kind services; and I can only say that if all my continental friends would be equally prompt in putting me in possession of their new unfigured species of shells by the same means, it would avoid a great deal of confusion, and enable me to do justice alike to all authors.

Species 12. (Mus. Cuming.)

Haliotis corrugata. *Hal. testa ovata, convexa, spiraliiter crebrisubrussata, liris undique tawido-corrugata, plicis undatis interdum oblique decussatis, foraminibus perpaucis, amplissimis, tubiferis, tribus tantum perennis; extus rubido-costans friridique, nigro-marginato, pulchre irridescente.*

The wrinkled Haliotis. Shell ovate, convex, spirally closely ridged, ridges prominently raised throughout in swollen wrinkles, sometimes obliquely crossed with waved folds, perforations few in number, large, tubiferous, three only open; exterior rayed with dark green and reddish chesnut, edged with black, very beautifully iridescent.


*Hab. California.*

This fine large species, which is not uncommon in collections, may be recognized by the conspicuous nodulous wrinkles with which its entire surface is covered; it is a thick heavy shell, rather more convex than usual.

April, 1846.
Haliotis Japonica. Hal. testa ovata-oblonga, subplana\nulato-convexa, liris tenuis aequalibus spiraliter sinuante\nlata, concentricis rugoso-plicatis, plicis conspicuis lamel\nlaformibus irregularibus, foraminibus quam sensissime perecis; tuto, olivaceo-fusco, viridique unique pulcherrim\nem variegatam.

The Japan Haliotis. Shell ovaly oblong, rather flatly convex, spirally corded with fine equal ridges, concentrically rugously plicated, plaits conspicuous, lamella-like, irregular; five to six holes open, beautifully variegated with yellow, olive-brown and green.

This beautiful species from Japan might easily be mistaken for the following, from the coast of Gibraltar, the shell being developed in stout concentric ridges in a nearly similar manner; the detail of sculpture will, however, be found on examination, to differ materially. In the H. Japanica the surface is engraved throughout with fine cords, equidistant from each other, and extremely regular in their arrangement; in the H. lamellosa the ridges are very irregular, though mostly alternately broad and narrow; and the interstices are not so distinctly grooved. Coming from such a different locality these variations may be regarded of ample specific importance.

Haliotis lamellosa. Hal. testa oblongo-ovata, subplana\nulato-convexa, spiraliter tenuilirata, liris obtuissime, irre\ngularibus, foraminibus quam sensitissime perecis; tuto, olivaceo-fusco, viridique, vel aurantio-rorente, unique pulcherrimem variegatam.

The lamellassed Haliotis. Shell oblong-ovate, rather flatly convex, spirally finely ridged, ridges obtuse, irregular, with the alternate mostly the larger, concentrically obliquely plaited, plaits conspicuous lamellalike, irregular, five to six holes open; beautifully variegated with yellow, olive brown and green, or with orange red.

Lamarck, Anima. sans vert. (Deshayes' edit.), vol. ix. p. 29. 

For Species 15, see Plate IX.

Haliotis MiDE. Hal. testa rotundato-ovata, depresso\nplana, circa apicem umbilicatam et creberrimem spiraliter sinuante, obliqua obsoletae nudata, concentricis plicato, plicis peculiariarum annulatis, et retrorsum crispatis, valde irregularibus; marginibus posticis sinistrumque latissi\nme, plano-reflexis; foraminibus parvis numerosissime conffertis, ad narnis perecis; extus luteo-albicante, apicis plaeisque sepisimem corallo-rubris, epidermide tuteo-fusca iunatis, tuto caruleo-viridi sanguineoque iridescente.

Midas's Haliotis. Shell roundly ovate, depressely flattened, very minutely and closely spirally grooved around the apex, obliquely obsolescently waved, concentrically plaited, plaits peculiarly waved and curled backwards, very irregular, posterior and left margins broad and flatly reflexed, holes small, very numerous, close-set, about nine open; outside yellowish white, apex and folds more or less tinged with coral red, covered with a light yellowish-brown epidermis, inside iridescent with blueish green and faint blood tinge.


Testa juvenis. 

Haliotis Capensis, Dunker. 

For Species 16, see Plate IX.

Haliotis Cephus, Dunker. 

Hab. Cape of Good Hope.

In order to appreciate the characters of this beautiful species, it should be examined in different stages of growth; in a very young state there is no indication of the warby curled plaits with which the shell is so remarkably characterized in a matured condition. The entire surface of the primitive whorls is very minutely spirally grooved or elevately striated; the plaits begin to develop themselves at the commencement of the last whorl, originating from a point in its centre, and gradually spreading in light lamella-like wrinkles like a concentric flow of ripples on the bosom of a calm lake. In this state it is of an oblong form, rather acuminate anteriorly, and constitutes the H. Capensis of Dunker, Philipp, Abbild. und Besch. Couch. Hal. Pl. 1. Fig. 4. As the shell advances in growth the plaits become more thickened and irregular, and wind round the spire in such a manner as to form a flattened reflexed rim. The spire, generally more or less worn, has a peculiar coppery red iridescence, and the plaits, though covered naturally with a pale yellowish brown epidermis, are coral-red beneath, and mostly exhibit their colour from the effects of friction.

May, 1846.
Species 17. (Mus. Cuming.)

**Haliotis sanguinea.** *Hal. testa oblongo-ovata, antice flexuoso-contracta et attenuata, parte spirali subvertebrata, concentricè oblìque corregit et striatâ; foraminibus creberrimis, ad novem percìis; fusca (in alato juventi albicariétâ), spirâ intus sanguineo peculiariter tinctâ.*

**THE BLOOD-STAINED HALIOTIS.** Shell oblong-ovate, anteriorly flexuously contracted and attenuated, spiral portion of the shell rather elevated, concentrically obliquely wrinkled and striated, holes very close together, about nine open; brown (variegated with white in a young state), spire peculiarly tinged within with blood red.

Hanley, Young Conchologist’s Book of Species (1841), p. 60. Frontispiece, f. 5.

*Haliotis fieforhms,* Menke.

*Hab.* Cape of Good Hope.

This species may be easily recognised by its obliquely wrinkled and dark chocolate brown exterior, and by an iridescent blood stain within the winding cavity of the spire; the holes are very numerous and unusually close together, and the anterior portion of the shell is peculiarly flexuous and attenuated. It was originally described and figured by Mr. Hanley, in a little work called ‘The Young Conchologist’s Book of Species’.

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Species 18. (Mus. Cuming.)

**Haliotis asinina.** *Hal. testa elongato-ovata, subcarnéata, postice flexuoso-acuminata, spirâ terminali, oblìque irregulariter striatâ, parte postice liris subtilibus subdistantibus et apice radiantibus, deinde evanís; foraminibus parvissimis, numerosìs, ad octonis percìs; olivaceo-cirrìdè, maculis fuscis perpantìs subtrigoniès, flammis lineatissimis, lineisque fasciis numerosís brevìs interruptis pulcherrimè variegatâ, radiis viridibìs et rufo-fuscìs undatìs prope apicum alternatìs pictâ.*

**THE ASS’S HALIOTIS.** Shell elongately ovate, slightly curved, posteriorly flexuously acuminated, spire terminal, obliquely irregularly striated, posterior portion of the shell with fine rather distant ridges radiating from the apex, then fading away; holes rather small, numerous, about eight open; olive green, beautifully variegated with a few triangular brown spots, yellowish flames and numerous short interrupted brown lines, and painted with alternate green and reddish yellow zigzag rays next the apex.

Linneus, Syst. Nat. (10th edit.), p. 780.

*Hab.* China; Belecher, Dr. Sibbald. Philippine Islands; Cuming.

This very prettily variegated species, the most elongated of the genus, is remarkable for the extra-terminal convolution of the spire.

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Species 19. (Mus. Cuming.)

**Haliotis gigantea.** *Hal. testa ovata, spiraliiter costatâ, costis parvis crebris irregularibus obtusiis, interdum subboveolitis, oblìque nodoso-undatîs; foraminibus amplis, peculiariter tubulosis, tribus quaternîs percìis; extus spadiceo-rubente, intus albicante pallide viridique irridescente.*

**THE GIANTIC HALIOTIS.** Shell ovate, spirally ribbed, ribs small close irregular obtuse, sometimes somewhat obsolete, obliquely nodosely waved; holes large, peculiarly tubular, three to four open; exterior fawn red, interior iridescent with white and pale green.


*Haliotis tubifera,* Lamark.

*Hab.* Japan; Dr. Siebold.

The word *gigantea* is a much less appropriate term for this species than *tubifera*, for there are four or five others of larger size, but none in which the orifices are so peculiarly tubular; the rule of priority nevertheless requires that it should be adopted in preference. It was wrong of Chemnitz to introduce this shell under the name of *gigantea*, when he considered it to be identical with the *H. navosa* of Martyn; it happens, however, that these are two distinct species, and both names, therefore, must be maintained. The *H. gigantea* is a peculiar light fawn-coloured red shell from Japan, well distinguished by the tubular structure of the holes; the *H. navosa* (for which see Plates VIII. and IX., Fig. 27), is of a deep coral red, sometimes green, variegated, from Van Dieman’s Land, and of smaller size.

May, 1846.
HALIOTIS.

Plate VII.

Species 20. (Mus. Cuming.)
HALIOTIS SQUAMOSA. Hal. testa oblongo-ovata, transversim obliquè rugosà, spiralisiter tuberculato-costatà, tuberculis squamiformibus, costis nunc confertis, nunc tigris parce intercurrents; foraminibus subamplis, septem terris perennis; extus aurantio-fusco luteno-maculatà et variegatà, intus albicante, irriscentè.

The scaly Haliotis. Shell oblong-ovate, transversely obliquely wrinkled, spirally tubercularly ribbed, tubercles scale-like, ribs sometimes close, sometimes with a fine ridge running between them; perforations rather large, seven open; exterior spotted and variegated with yellow and orange-brown, interior whitis, irridescent.

Gray, Appendix to King's Voyage (Narrative of a Survey of the Coast of Australia, 1827), vol. ii. p. 495.

Haliotis Rodinaei, Philippi.

Hab. Australia; King.

An extremely interesting species, well characterized by its close ribs of scale-like tubercles, ranging across the shell in oblique waves; in the middle portion of the shell there is a fine ridge running between the ribs; the colour is also peculiar, a kind of burntumber-stained orange.

Dr. Jonas of Hamburgh informs me that there is another specimen in the collection of Dr. Roding of that city.

Species 21. (Mus. Cuming.)
HALIOTIS ELEGANS. Hal. testa elongato-ovata, subflexuosà, convexa, apice terminali; spiralisiter costatà, costis tenue- bus, angustis, elevatis, lamelliformibus, per summaturum subobsoletà crebrisquamensis, costarum interstilis sub- profunde sulcatis, striatis; foraminibus parvis, remotis, ad octonius perennis; aurantià-lutea, aurantià-refuscèntia striata et variegata; intus albicante, margaritaceà.

The elegant Haliotis. Shell elongately ovate, rather flexuous, convex, apex terminal; spirally ribbed, ribs thin, narrow, elevated, lamella-like, somewhat obliquely closely scaled along the summit, interspaces between the ribs rather deeply grooved and stratified, holes small, distant, about eight open; orange cream colour, streaked and variegated with orange red, interior whitis, pearly.

Koch, Philippi, Abbild. und Besch. Conch. Haliotis, pl. 1. fig. 1 and 2.

Hab. Port Adelaide, New Holland.

This is a truly elegant species and very distinct from any hitherto known; its form is that of a gracefully curved elongated oval, covered with erect close-set lamella-like ribs, spirally radiating from the apex, the summits of which are swollen and bent over with scales fitting closely one upon the other. Its general tinge is that of an orange cream colour.

Species 22. (Mus. Cuming.)
HALIOTIS COCCINEA. Hal. testa oblongo-ovata, spiraliter tigratà, tiris cereberrinis inaequalibus, interstilis transversim aiuntissimè striatis; foraminibus confertissculis, quinis senisse perennis; extus coccineo-rufis, interstilis albicante maculatà et variegatà, intus argento-albicante.

The scarlet-clad Haliotis. Shell oblong-ovate, spirally ridged, ridges very close, unequal, interspaces transversely finely stratified; holes rather close, five or six open; exterior scarlet-red, spotted and variegated with yellowish white, interior silvery white.


Hab. Cape de Verdi Islands.

The ridges have a tendency to range alternately singly and in pairs, but are very irregular.

Species 23. (Mus. Cuming.)
HALIOTIS CRACHERODI. Hal. testa ovatà, convexa, spirà subacutã; levigatà aut radiatius striatà, foraminibus parce, senis ad octonius perennis, extus cæruleo-bruniceà, intus albicante, margaritaceà.

Cracherode's Haliotis. Shell ovate, convex, spire somewhat concealed; smooth or radiately stratified, holes small, about six to eight open; exterior blueish black, interior whitis, pearly.

Leach, Zoological Miscellany, 1814, vol. i. p. 131.

Haliotis glaber, Schubert and Wagner.

Hab. California.

It may perhaps be as well to mention that the fine specimen of H. Cracherodi here figured from Mr. Cuming's collection, is of unusually large size; it is of a peculiar bottle-blue black colour externally, and has never more than eight of the perforations open.

May, 1846.
HALIOTIS.

PLATE VIII.

Species 24. (Mus. Cuming.)

HALIOTIS ZUCZAC. Hal. testa ovata, planulato-concava, spiraliiter subtilissimè sulcata, foraminibus parvisculturis, senis percessis; luteo-viridis, apice luteo-viridescente oblique planulato-nudata, apice luteo-aureantio tincta, intus argentea, irridescente.

The zigzag Haliotis. Shell ovate, rather flatly convex, spirally very finely grooved, perforations rather small, six open; dark olive green, obliquely marked with light yellowish green zigzag flames, apex tinged with orange yellow, interior silvery, iridescent.


Hab. Calipan, Island of Mindoro, Philippines (found on smooth stones); Cuming.

The colour, form, and general aspect of this shell very much resembles those of the H. globra; it differs chiefly in having the entire surface finely radiately grooved. The zigzag design of the colouring is very characteristic.

Species 25. (Mus. Cuming.)

HALIOTIS EXCAVATA. Hal. testa subrotundâ, conveexissimâ, spirâ elevatâ; spirulariter subtiliter liratâ, liris striis radianliibus decussatis, regis brevisibus obliquis circa spiram concentricâ dispositis; viridi-albicante, olivaceo-fusco radiatim striatâ et variegatâ, intus profundè excavatâ, albicante, pulcherre irridescente.

The excavated Haliotis. Shell nearly round, very convex, spire elevated; spirally finely ridged, ridges crossed with radiating striae, with short oblique wrinkles concentrically ranged round the spire; greenish white, radiately streaked and variegated with olive brown, interior deeply excavated, whitish, beautifully iridescent.


Hab. Kangaroo Island, Australia.

An interesting and well-known species, fully distinguished from any other hitherto recorded by its rounded convex growth.

Species 26. (Mus. Cuming.)

HALIOTIS CALIFORNIENSIS. Hal. testa ovata, spirâ sub-occulta, levigata aut decussatim striatâ, margine sinistro latissimo, concavo-planâ; foraminibus minutis, numerosissimis, duodecim per circî; testa luteo-viridescente, intus albidâ, margaritacea.

The Californian Haliotis. Shell ovate, spire rather concealed, smooth or decussately striated, left margin rather broad, concavely flattened; holes very small and numerous, twelve open; exterior blueish black, interior whitish, pearly.


Hab. California.

This species has been separated with excellent discrimination by Mr. Swainson from the H. Cracherodii, from which it exhibits little intelligible difference beyond the unusual number and smallness of the holes; in the specimen here figured there are as many as twelve open; Mr. Swainson does not enumerate the perforations of the specimen he described, but in comparing it with the H. Cracherodii he sufficiently explains that they are "half as large and doubly numerous."

The distinction above noted between the H. Cracherodii and Californiensis, appears to have escaped the critical attention of M. Deshayes; the shell described by him, first, as the H. globra, after Schubert and Wagner, and secondly, as the H. Californiensis, is the H. Cracherodii, which, though commonly of similar dimensions, is often much larger. The marked difference in the arrangement and number of the perforations in these two Californian species is certainly important; it is not a character of the genus to present so great a variation in different individuals of the same species.

Species 27. (Mus. Cuming.)

HALIOTIS N. Evosa.—For description and further illustration of this extremely variable species see PLATE IX.

May, 1846.
Haliotis.

Plate IX.

Species 27. (Fig. a, Plate viii, and Fig. c, Mus. Cuming; Fig. b, Mus. Metcalfe.)

Haliotis naviosa. _Hal. testa ovata, spiralis lirata, tiris granoso-convexa, sepe alternatione majoris, oblique undulato-rugosa, rugis plus minusque liniatus, foraminibus sesis percis; aut viride rubra aut coccineorubra, lutescente radiata, aut olicaeo-refloscente viridi radiata._

The knotted Haliotis. Shell ovate, spirally ridged, ridges granosely scaled, often alternately the larger, obliquely undately wrinkled, wrinkles more or less swollen, six holes open; deep red or scarlet red, radiated with yellowish white, or light olive red radiated with green.

Martyn, Universal Conch. v. ii. f. 63.

_Haliotis ruber_, Leach.

_Hab._ New Holland, New Zealand, and Van Diemen's Land.

This is the most variable species I have met with, and appears to have been greatly misunderstood by authors; Lamarck confounded it with the _H. gigantea_, his _H. tubifer_; Philippi with the _H. Cunninghamii_, whilst Dr. Leech described it in his 'Zoological Miscellany' Pl. 23, as a new species, under the name of _H. ruber_. The variations chiefly consist in the spiral ridges being more or less prominently developed, and in the obliquely waved wrinkles being more or less swollen; in colour the species varies from an uniform deep coral red to a reddish olive, radiated with pale green, as represented in Fig. 27 of the preceding and accompanying plates.

Species 15. (Mus. Cuming.)

_Haliotis multiperforata_. _Hal. testa oblongo-ovata, subflaccida, anfractus parte spirali subelevata_; spi-

Haliotis ovina. _Hal. testa suborbiculari-ovata, convexo-depressa, spiralis plano-depressa, anfractus rugis tumidis plicato-radiatis, foraminibus tubiferis, quinis semis percis; rubra aut viridi pulcherrimae marmorata, intus argentea._

The sheep Haliotis. Shell somewhat orbicularly ovate, convexly depressed, spire flatly depressed, whorls plicately rayed with swollen wrinkles; holes tubiferous, five or six open; exterior very beautifully marbled with orange-red or green, interior silvery.


_Hab._ New Holland and the Philippine Islands.

An extremely characteristic species, an orange-red marbled example of which is very correctly represented by Chemnitz; neither Lamarck nor Deshayes appear to have been acquainted with it.

June, 1846.
HALIOTIS.

PLATE X.

Species 29. (Mus. Brit.)

Haliotis Emme. Hal. testá suborbiculari-ovatá, tenni-culá, convexá, spiraliter subtilissimé granoso-liratá, medio leviter obtuso-carinatá, circa spiram radiatim plicatá, spirá conspicuá subcentrális; foraminibus tubiferis, senis perviis; vivide rubrá, zonis albis undatis oblique radiatá.

EMMA'S HALIOTIS. Shell somewhat orbicularly ovate, rather thin, convex, spirally very finely granosely ridged, slightly obtusely keeled in the middle, radiately plicated around the spire, spire conspicuous, subcentral; perforations tubiferous, six open; bright red, obliquely rayed with white waved zones.


A very striking, brightly coloured species, allied in structure to the H. rubicundus, and belonging to the genus Paddleus of De Montford.

Species 30. (Mus. Cuming.)

Haliotis albicans. Hal. testá suborbiculari-ovatá, convéxá, levigatá aut spiraliter obsolete liratá; foraminibus parvis, numerosis, decenis perviis; extus iuteo-coccineá, flammantis albídis radiatá intus argenteá.

THE WHITISH HALIOTIS. Shell somewhat orbicularly ovate, convex, smooth or spirally obsolete ridged; perforations small, numerous, ten open; exterior yellowish scarlet, rayed with whitish flames, interior silvery white.

QUOY and GAIMARD, Voyage de l'Astrolabe, vol. iii. p. 311. pl. 68. f. 1, 2.

Hab. New Zealand.

No one can fail to distinguish this species by its delicate rayed style of colouring; the perforations are more than usually small, and the silvery interior is characterized by a kind of minute wavy pattern.

Species 31. (Mus. Cuming.)

Haliotis discus. Hal. testá oblongo-ovatá, elevento-con-vexá, hic illie tumidá et rufósa, latere sinistro lato, peculiariter erecto; foraminibus amplis, subdistantibus, tubiferis, quaterás tantum perviis; castaneo-fuscaé, viridi aut rufescente radiatim tinctá.

THE QUOIT HALIOTIS. Shell oblong ovate, elevately convex, here and there swollen and wrinkled, left side broad, peculiarly erect; perforations large, rather distant, tubiferous, four only open; chestnut brown, faintly radiated with red or green.


Chiefly distinguished from any species hitherto recorded by its oblong form, and erect growth of the perforated side of the shell.

June, 1846.
HALIOTIS.

PLATE XI.

Species 32. (Mus. Cuming.)

Haliotis Sieboldii. Hal. testâ subobliquê ovatâ, sub-pectinatâ, valdê convexâ, apice terminali, eiz spirali; radiatim liratâ, liris obtusi, subdistantibus; foraminibus subampîlis, quinis percis; extus auranio-ruber, intus albicante, irridescente.

Siebold’s Haliotis. Shell somewhat obliquely ovate, a little pectinated, very convex, apex terminal, scarcely spiral; radiately ridged, ridges obtuse, rather distant; holes rather large, five open; exterior orange-red, interior white, iridescent.


Hab. Japan; Dr. Siebold.

This very remarkable species, which is at present unique in the collection of Hugh Cuming, Esq., has very much the form of a Conchoplea or the left valve of a Cardium; its resemblance to the latter is, however, probably the more striking. It is of a hollow ventricose growth, the apex with scarcely any spiral, terminating on the margin, like the umbo of a Cockle.

Species 33. (Mus. Cuming.)

Haliotis bistriata. Hal. testâ oblongo-ovatâ, subplanulatâ, spiraliter liratâ, liris valdê irregularibus nunc latis, nunc angustis, interditius incisis; latere sinistro latiusculâ, foraminibus sensi percis; rubido-fusco, viridi aut rufescce variegatâ.

The double-striated Haliotis. Shell oblong-ovate, rather flattened spirally ridged, ridges very irregular; sometimes broad, sometimes narrow, interstices engraved; left side rather broad, six holes open; variegated with green and reddish brown, sometimes sprinkled with iridescent white spots.


Hab. Mozambique.

This species may be recognised by the very irregular width of the ridges and sharply engraved interstices; it is sometimes very prettily variegated with red and green, but a dark reddish brown sprinkled with whitish spots is the predominating colour.

Species 34. (Mus. Saul.)

Haliotis tuberculata. Hal. testâ ovatâ, convexo-depressâ, spiraliter inciso-striatâ, radiatim tuberculato-plicatâ, plicis inequalibus, plus minusve tumidis; rubido-fusca, viridi aut rufascce variegatâ.

The tuberculated Haliotis. Shell ovate, convexly depressed, spirally deeply striated, radiately tubercularly plicated, plaits unequal, more or less swollen; reddish brown, variegated with red and green.


Hab. Guernsey &c.

Extremely variable in its colouring, which is sometimes a dull mixture of red and green, at other times a reddish brown ornamented with light green zigzag waves, as in the specimen selected for illustration.

June, 1846.
Haliotis.

Plate XII.

Species 35. (Mus. Cuming.)

Haliotis squamata. Hal. testa oblongo-ovata, convexa, spirali ter ritata, livis cerebrinmis, squamatia, alternas majoribus; formulaibus octonis percisis; fuscis et rubris, flavanulis intestinibus undatis ornatis, intus viride irritidescente.

The squamate Haliotis. Shell oblong-ovate, convex, spirally ridged, ridges very close-set, squamate, the alternate the larger; eight perforations open; brown and reddish brown, ornamented with yellowish waved flames.


Hab. North West Coast of Australia; Dring, H.M.S. Beagle.

The form of this shell is rather more than usually convex, and the surface is closely set throughout with fine ridges of scales, the colouring being a rich red-brown ornamented with waved yellowish flames.

Species 36. (Mus. Cuming.)

Haliotis virginea. Hal. testa ovata, depressa, spirali ter renvenia subpredata, livis intermediis seqissimae duplicatis; formulaibus senis percisis; fuscis, rubro viridique plus minuere tintis, maculis grandiis allis irregulariter notatis.

The virgin Haliotis. Shell ovate, depressed, spirally grooved, intermediate ridges very often duplicate; six perforations open; brown, more or less stained with red and green, irregularly marked with large white blotches.


Distinguished among other characters by the irregular scattered white blotches.

Species 37. (Mus. Sauv.)

Haliotis irise. Hal. testa ovato-oblonga, convexa, postice attenuata, spirae terminalis, peculiariter descussata corrugata et plicata, latere sinister lato, erecta; formulaibus quibus percisis; extus luteo viridique variigetata, intus corneo viridique viride irritidescente.

The rainbow Haliotis. Shell ovate oblong, convex, attenuated posteriorly, spire terminal, peculiarly de- cussately plicated and wrinkled, left side broad, erect; five perforations open; exterior variegated with green and yellow, interior blue and green, brightly iridescent.


Hab. Kangaroo Island, Australia.

This well-known species may be recognised by its oblong hollow form, and flat inflexion of the margin in the vicinity of its terminal spire; the indented surface of the shell is also peculiar.

Species 38. (Mus. Cuming.)

Haliotis funebris. Hal. testa ovata, subdepresso-convexa, spirali ter ritata, livis subsquamatis, bic illis majo- ribus, transversius peculiariter rugoso-plicatis; formulaibus octonis ant novem percisis; rubido-costata, inter- duum viridi tintis, flavanuis perpansis indistinctissimis circa spiram.

The mourning Haliotis. Shell ovate, somewhat depressely convex, spirally ridged, ridges slightly squamate, here and there larger, transversely peculiarly rugosely plicated; perforations eight or nine open; reddish chestnut sometimes tinged with green, with a few indistinct light flames around the spire.


Hab. New Holland.

This is a larger and flatter species than the H. squamata, and the ridges are more widely separated and less squamate.

Species 39. (Mus. Hudson.)

Haliotis diversicolor. Hal. testa ovata, subplanispatia, spirali ter ritata, livis obscuris irregularibus, transversius lecte plicatis; formulaibus octonis vel novem percisis; castaneo-fusco coccineo-refo viridique radiatis, maculis undatis intestinibus variegatis.

The divers-coloured Haliotis. Shell ovate, rather flattened, spirally ridged, ridges obtuse, irregular, transversely slightly plicated; perforations eight or nine open, rayed with chestnut brown, scarlet-red and green, and more or less variegated with zigzag yellowish blotches.


Hab. New Holland.

This species may be distinguished amongst other char- acters by the brightness and variety of its colours.

June, 1846.
Haliotis.

Plate XIII.

Species 40. (Mus. Cuming.)

Haliotis viridis. Hal. testá ovátá, depresso-concava, obliquè undulato-rugatá, spiráliter liratá, lirárum inter-
stítili subtilissimi striáti; foraminibus quinquis perécis; extus albícántae, viridi pulcherriümque línctá et marvoratá, intus argenteátæ.

The green Haliotis. Shell ovate, depressely convex, obliquely undulating, spirally ridged, interstices between the ridges very finely striated; five perforations open; exterior whitish, beautifully stained and marbled with green, interior silvery.


Hab. ——— ?

Very closely allied to the H. varia, from which it differs only in the depression of the spire, and a slight though characteristic variation in the sculpture.

Species 41. (Mus. Cuming.)

Haliotis asstricta. Hal. testá ovátá, concava, spiráliter liratá, lirárum lamínis striáque elevátis irregularibus rad-
diátum decussátis; foraminibus quaternis perécis; extus albído olivaceo-cirrídippe marvoratá, intus irrídescente.

The tidied Haliotis. Shell ovate, convex, spirally ridged, radiately crossed with irregular raised striae and laminae; four perforation open; exterior marbled with white and olive green, interior iridescent.


Hab. ——— ?

Distinguished by the strong decussating sculpture of the cross ridges.

Species 42. (Mus. Hanley.)

Haliotis gibba. Hal. testá oblongo-ovátá, peculiariter concava aut gibba, spiráliter liratá, lirárum irregularibus, crebrisusculis; spirá subterminali; foraminibus quinquis perécis; extus fusco- et carameo-cirríd, strígis albidis, rufa punctatís, nudatis, interdum ornatá, intus peculiariter irrídescente.

The gibbous Haliotis. Shell oblong-ovate, peculiarly convex or gibbous, spirally ridged, ridges irregular, rather close-set, spire nearly terminal; five perforations open; exterior brownish or bluish green, sometimes ornamented with white, red-dotted, waved streaks, interior peculiarly iridescent.

Philippi, Abbild. und Besch. Haliotis, Pl. ix. f. 2, a and b.

Hab. ——— ?

The inner surface of this very characteristic species is disposed in minute wrinkles, from which the refraction of light throws off a peculiar degree of irridescence.

Species 43. (Mus Taylor.)

Haliotis tayloriana. Hal. testá oblongo-ovátá, soli-
diusculá, concava, spirá subterminali; spiráliter obtusè et irregulariter liratá; foraminibus septenis ad novensis perécis; extus coccineo-fuscá, flavido, coccineo-fusco, maculato, prope spirárum nebulátatá, intus albícánta.

Taylor’s Haliotis. Shell oblong-ovate, rather solid, convex, spire nearly terminal; spirally obtuse and irregularly ridged; seven to nine perforations open; exterior scarlet-brown, clouded near the spire with yellow spotted with scarlet-brown, interior white.


Hab. ——— ?

I have the pleasure of describing this comparatively rare species from specimens in the collection of Thos. Lumbe Taylor, Esq. It is of a dull scarlet-brown, the posterior portion of the shell being clouded with pale yellow, peculiarly mottled with dashes of the darker colour.

Species 44. (Mus. Cuming.)

Haliotis marmorata. Hal. testá depresso-ovátá, dex-
trorum posticè effusa, spirá subterminali; spiráliter planicostatá, sulcis internéulis subinvolutatá; forami-
nibus semis vel septenis perécis, extus viridi, rufa marvoratá, intus albícánta.

The marbled Haliotis. Shell depressely ovate, effused posteriorly on the right side, spire nearly terminal, spirally flattened ribbed, intermediate ridges rather excavated; six or seven perforations open; dark green, marbled with red, interior whitish.

Gray, MSS. (private cabinet).

There is a peculiarity in the growth of this shell, in the right posterior extremity being so prominently effused round the spire.

July, 1846.
Haliotis.—Plate XIII.

Species 45. (Mus. Cuming.)

Haliotis rubiginosa. *Hal. testá ovátá, subdepressa-cuneátá, radiatim plicato-rugósá, spirálitür lirátá, lirís obtusá squamátis, foraminibus subapproximátis, senis perecís; extus rubiginoso-aurantió, spirálitür albitrigáta, intus argénta.*

The rusty Haliotis. Shell ovate, rather convex, radiately plicated wrinkled, spirally ridged, ridges obtusely scaled; perforations rather approximated, six open; exterior rusty orange, spirally streaked with white.


Hab. —— ?

Besides the peculiarity of sculpture, it is very fairly characterized by its rusty orange painting and silvery interior.

Species 46. (Mus. Cuming.)

Haliotis coccoradiata. *Hal. testá suborbiculári-ovátá, plano-convexá, medio leciter depressá, spirálitür subtiliter lirátá, lirís striís minitís elevátis decussátis; foraminibus senís percís; flavídá, striís latis vivide coccióris radiatim pictá.*

The scarlet-rayed Haliotis. Shell somewhat orbicularly ovate, flatly convex, slightly depressed in the middle, spirally finely ridged, ridges crossed with minute raised striae; yellowish, radiately painted with broad, bright scarlet streaks.


Hab. —— ?

No one can fail to recognize this delicate and very striking scarlet-rayed species. The ridges are minutely beaded, as it were, with transverse striae, and the surface of the shell is peculiarly indented.
**HALIOTIS.**

**PLATE XIV.**

Species 47. (Mus. Cuming.)

**HALIOTIS SPECIOSA.** *Hal. testa oblongo-ovata, plano-convexa, medio depressa, spiraliter elevato-striata, striis confertis; foraminibus senis pereiss; coccineo-refus, alio, nigricante marginati, pulcherrimae variegati.*

**The Handsome Haliotis.** Shell oblong-ovate, flatly convex, depressed in the middle, spirally elevated striated, striae close-set; six perforations open; scarlet-red, beautifully variegated with black-edged white.


*Hab. — ?*

This is a very gay species, the colour being a rich scarlet red, variegated with broad zigzag flames, edged along the front with black.

Species 48. (Mus. Cuming.)

**HALIOTIS RETICULATA.** *Hal. testa oblongo-ovata, antice subpatentia, plano-convexa, medio depressa, later sinistro latissima, erecta, spiraliter ex striata; foraminibus quaternis pereiss; sordidë fusëe, manentis albidis reticulatiss; subtriangularibus, ovati.*

**The Reticulated Haliotis.** Shell oblong-ovate, somewhat attenuated, flatly convex, depressed in the middle, left side rather broad, erect, spirally slightly striated; four perforations open; dull dark brown, ornamented with somewhat triangular reticulated white spots.


*Hab. — ?*

May be recognized by the triangular reticulated style of the painting.

Species 49. (Mus. Cuming.)

**HALIOTIS NEBULATA.** *Hal. testa oblongo-ovata, convexa, spiral subhelecat, spiralliter sulcat, sulcis pereiss, undatis; foraminibus subapproximatis, septenis pereiss; fusco roseoque undique nebulata.*

**The Clouded Haliotis.** Shell oblong-ovate, convex, spire rather elevated, spirally grooved, grooves small, waved; perforations rather approximated, seven open; clouded throughout with brown and red.


*Hab. — ?*

Very distinct, both in form and in its style of painting.

Species 50. (Mus. Cuming.)

**HALIOTIS SEPIICULATA.** *Hal. testa ovata, spiraliter peculiariter lirat, liris angustis, erectis, satis irregularibus, raditum undato-plicat; foraminibus anulris, senis pereiss; olivaceo-viridi, hic illic albipunctat.*

**The Hedged Haliotis.** Shell ovate, spirally peculiarly ridged, ridges narrow, erect, very irregular, radiately undately plicated; perforations large, six open; dark olive green, here and there dotted with white.


*Hab. — ?*

A fine species, well-characterized by the erect development of the ridges.

Species 51. (Fig. a, Mus. Hanley, b, Mus. Cuming, c, Mus. Metcalfe.)

**HALIOTIS SEMISTRIATA.** *Hal. testa ovata, spiraliter subtilliter lirat, radiatum undato-plicat et plus minusve tuberculosat; foraminibus subuliferis, quinis pereiss; fusco aut coccineo-refus, albiaculat.*

**The Half-striated Haliotis.** Shell ovate, spirally finely ridged, radiately undately plicated, and more or less tuberculated; perforations a little tuberitous, five open; brown or scarlet red, spotted or streaked with white.


*Hab. Ceylon; Dr. Sibbald.*

A well-marked species, though extremely variable in its colouring and sculpture, some specimens being covered with swoollen tuberules, whilst others are comparatively smooth; as a general rule it may be observed that the spiral half of the shell is the more distinctly striated or finely ridged. Care should be taken not to confound this species with the *Haliotis varia*, to which it has some slight resemblance, though differing in colour.

July, 1846.
Haliotis.

Plate XV.

Species 52. (Mus. Metcalfe.)

Haliotis pustulata. Hal. testá oblongo-ovatá, spiráliter obscurá liratá et tuberculás parëcis pustulatá, radiatim plícatá; foraminibus semis perciss; orbículis vérídique pulcherrimè marvórátæ.

The Pustulatæ Haliotis. Shell oblong-ovate, spirally obscurely ridged, and pustulated with small tuberces, radiately plicated, six perforations open; beautifully marbled with green and white.


Hab. —?

A prettily variegated species, distinguished by its obscure tubular sculpture.

Species 53. (Fig. a, Mus. Metcalfe, Fig. b, Mus. Cuming.)

Haliotis parva. Hal. testá orbiculari-ovatá, spiráliter crerbrisstratá, medio subdepressá, costá unica conspicuá rotunda notatá; foraminibus tubíferis, semis perciss; vérídè coccineo-rufit.

The Small Haliotis. Shell orbicularly ovate, spirally closely striated, a little depressed in the middle, and marked with a single conspicuous rounded rib; perforations tubificous, six open, bright scarlet red.

Variety b. (Fig. 53, b.)

Testá viridescente-aliátid, purpuro-rufa pulcherrimè variegatá et strigatá.

Shell beautifully variegated and streaked with greenish white and purple-red.


Haliotis canaliculata, Lamarck.

Hab. —?

The varieties of this species above noted are so very distinct and characteristic, that I was strongly tempted, at one time, to regard them of specific importance; the distinction is not, however, supported by the slightest variation in form or sculpture. Another circumstance in testimony of their specific relation, is, that both varieties are frequently more or less covered with a peculiar kind of deposit, probably coraline, which I have not observed on any other species.

Species 54. (Mus. Cuming.)

Haliotis aquatilis. Hal. testá oblongo-ovatá, plano-

convexa, medio depressá, variegatá, prope marginem pe. culinàrìt ad plícata; foraminibus semis perciss; orbículis vérídè, albido aut flavice notatá variegatá, intus albitae.

The Rippled Haliotis. Shell oblong-ovate, flatly convex, depressed in the middle, smooth, peculiarly plicated near the margin; six perforations open; light green, undately variegated with yellowish white, interior whitish.


Hab. Kurile Islands, south of Kamtschatka.

There is a marked peculiarity in the form and colouring of this species, independently of the rippled plications near the margin.

Species 55. (Mus. Cuming.)

Haliotis Janus. Hal. testá oblongo-ovatá, spiráliter liratá, liris subtilibus angustis, interstitialibus excentris; foraminibus semis perciss; latà latá, fusco grandiamulatá, prope foraminis oratá.

The Two-Faced Haliotis. Shell oblong-ovate, spirally ridged, ridges fine, narrow, interstices excavated, six perforations open; yellowish orange, ornamented next the perforations with a broad white band, coloured with large broad spots.


Hab. —?

The curious double style of painting which this shell exhibits is peculiar to the species, and not, as one might be led to imagine, a mere casual variety.

Species 56. (Mus. Cuming.)

Haliotis cruenta. Hal. testá ovatá, antice subaevitá, spirá elevatim-unitá, spiráliter peculiariter nudate et corrugato-stratid; foraminibus subapproximatis, octorris perciss; sanguineo albumque et albido sanguineo-punctato pulcherrimè variegatá.

The Blood-Smeared Haliotis. Shell ovate, a little attenuated anteriorly, spire rather elevated, spirally peculiarly striated in a waved and wrinkled manner; perforations somewhat approximated, eight open; beautifully variegated with white-dotted scarlet and scarlet-dotted white.


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HALIOTIS.—PLATE XV.

Hab. New Zealand.

A very pretty species, perfectly distinguished from any other in form, sculpture, and colouring.

Species 57. (Mus. Cuming.)

Haliotis incisa. Hal. testâ ovatâ, medio subdepressâ, spiraliter incisâ, subtuberculiferâ; foraminibus amplis, quaternis percis; albido et purpureo-viridi marmoratu, albido minutissimâ rufo-punctato.

The engraved Haliotis. Shell ovate, a little depressed in the middle, spirally engraved, slightly tuberculiferous; perforations large, four open; marbled with white and purple-green, the white very minutely dotted with red.


Hab. —?

Almost the entire surface of this shell is minutely speckled with red, over the green and white marbling.
HALIOTIS.

PLATE XVI.

Species 58. (Mus. Cuming.)

HALIOTIS STRIATA. Hal. testa oblongo-ovata, cubicze-depressa, spiralis subprominenta; spiralis crebrisstriata, radiatum leviter rugosa; foraminibus senis perviis; intus striatul, iridescente, extus ferrugineo, rufo, alboque marmorata.

The striated HALIOTIS. Shell oblong-ovate, convexly depressed, spire rather prominent; spirally closely striated, radiately lightly wrinkled; six perforations open; interior striated, iridescent, exterior marbled with rusty brown, red, and white.

Linneus, Syst. nat. (12th edit.) p. 1256.

Hab. ——?

I refer this shell to the H. striata of Linneus, as being the nearest to accord with his description; it is quite impossible to identify the species with any degree of certainty.

Species 59. (Mus. Cuming.)

HALIOTIS RUGOSA. Hal. testa ovata, convexa, medio leviter depressa, radiatum plicato-rugosa, spiralis lirata, liris obtusae, hic illic majoribus; foraminibus subamphis, quaternis perviis; extus olivaceo-fusco viridique marbled, marmorata.

The rough HALIOTIS. Shell ovate, convex, slightly depressed in the middle, radiately plicately wrinkled, spirally ridged, ridges obtuse, here and there larger; perforations rather large, four open; exterior marbled with olive-brown and green.


Hab. ——?

The ridges of this species are somewhat irregular near the apex, but in the middle they are arranged alternately one broad and three narrow.

Species 60. (Mus. Cuming.)

HALIOTIS ROSACEA. Hal. testa ovata, conico-depressa, spiralis crebrisstriata, liris striis esculptis undique decussatis; foraminibus peculiariter oblongo-ovatis, quaternis perviis; extus carallo-rubro et rosaceo-albicante marmorata, rubro viridique punctato.

The rose-tinted HALIOTIS. Shell ovate, convexly depressed, spirally closely ridged, decussated throughout with engraved striae; perforations peculiarly oblong ovate, four open; exterior marbled with deep coral red punctured with green.


Hab. ——?

It is impossible to give any other than a very faint conception of this beautiful shell in a figure, the entire surface has a most delicate beaded appearance, and the colouring is extremely rich; there is also a marked peculiarity in the oblong shape of the perforations which very nearly approximate.

Species 61. (Mus. Cuming.)

HALIOTIS PERTUSA. Hal. testa oblongo-ovata, spirally posticé subulatissimae sulcata, sulcis pertusiis, antice exiliter lirata, sulcis lirisque subirregularibus et undatiis; foraminibus senis perviis; extus rufo-fuscó, striis perpunctatis lutentibus undatis prope spiram, intus eicié iridescentem.

The pricked HALIOTIS. Shell oblong-ovate, spirally posteriorly very finely grooved, grooves pricked, anteriorly faintly ridged, grooves and ridges rather irregular and waved; six perforations open; exterior ruddy brown, with a very few yellowish zigzag streaks near the spire, interior brightly iridescent.


Hab. ——?

One half of the shell, next the spire, is sculptured with faint pricked grooves, the other with fine waved ridges.

Species 62. (Mus. Metcalfe.)

HALIOTIS PLANILIRATA. Hal. testa ovata, plano-convexa, spiralis lirata, liris planulatis, irregularibus; foraminibus quinque perviis; olivaceo- et corallo-cerido.

The flat-ridged HALIOTIS. Shell ovate, flatly convex, spirally ridged, ridges flattened, irregular; five holes open; olive and blueish green.


Hab. ——?

May be recognised by its dark blue-green flattened growth.

Species 63. (Mus. Hanley.)

HALIOTIS SCUTULUM. Hal. testá convexa, spirá depressa

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HALIOTIS.—PLATE XVI.

suboccultâ, spiraliter exiliter liratâ, liris planulatis, undulatis, his illic majoribus; foraminibus semis per-
viis; olivaceo-fuscâ, viridi pulcherrimâ articulatâ, punctatâ, et maculatâ.

The shield Haliotis. Shell convex, spire depressed, rather concealed, spirally faintly ridged, ridges flat-
tened, waved, here and there larger; six holes open; olive-brown, very beautifully articulated, dotted and
spotted with green.


Hab. — ?

The ridges of this species have a peculiar undulating character, and towards the middle of the shell are arranged
one broad and three narrow alternately.

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Haliotis Zealândica. Hal. testâ oblongo-ovatâ, subde-
pressâ, spiraliter irregulâriter sulcâtâ, liris intermedii
obtusis, nunc latis, nunc angustis, foraminibus semis
percis; rufo-castaneo et albicante peculiariter mar-
moretâ.

The New Zealand Haliotis. Shell oblong, rather
depressed, spirally irregularly grooved, intermediate
ridges obtuse, now broad, now narrow; six holes open;
exterior peculiarly marbled with reddish chest-
nut and red-tinged white.


Hab. New Zealand.

Distinguished by the curious irregularity of the grooves, and its style of painting.
HALIOTIS.

PLATE XVII.

Species 65. (Mus. Cuming.)

HALIOTIS DRINGII. *Hal. testa orbiculata-ovata, spiraliiter striata, radiatim plicata et tuberculata; foraminibus subtubiferis, quaternis pervisi; extus pallide viridescente-lutetia, medio conspicue coccineo-tincta, intus argentata.*

Dring’s Haliotis. Shell oricicularly ovate, spirally striated, radiately plicated and tuberculated; perforations a little tubiferous, four open; exterior pale greenish yellow, conspicuously stained in the middle with scarlet, interior silvery.


_Hab._ North coast of Australia; Dring.

I dedicate this interesting little species to Mr. Dring, of H. M. S. Beagle, in remembrance of the many beautiful new species of shells for which we are indebted to him, from the comparatively unknown region above noted.

Species 66. (Mus. Cuming.)

HALIOTIS CONCINNA. *Hal. testa suboblongo-ovata, spiraliiter striata, medio leviter tuberculata, obliquè subobscuro plicata; foraminibus quaternis pervisi; carneo-albicoante, coccineo-roseo profusè variegata.*

The neat Haliotis. Shell somewhat oblong-ovate, spirally striated, slightly tuberculated in the middle, obliquely rather obscurely plicated; four perforations open; fleshy white, profusely variegated with scarlet-rose.


_Hab._ Zamboanga, Island of Mindanao, Philippines; Cuming.

Another gaily-coloured species of similar style of painting, but of a totally different form.

Species 67. (Mus. Cuming.)

(Magnified double.)

HALIOTIS GEMMA. *Hal. testa suborbiculata-ovata, plano-convexa, latere sinistro latiuscula; spiraliiter tuberculata, radiatim pubererrima minutè plicato-squamata; foraminibus subtubiferis, quaternis quinquise pervisi; flavescente, coccineo viridique tincta.*

The gem Haliotis. Shell somewhat orbicularly ovate, flatly convex, left side rather broad; spirally tuberculated, radiately very beautifully minutely plicated; perforations a little tubiferous, four or five open; yellowish, stained with scarlet and green.


_Hab._ — ?

The surface of this beautiful little species, besides being tuberculated, is covered with minute scales, which present a rather more prominent character on the left side beneath the perforations.

Species 68. (Mus. Cuming.)

HALIOTIS LAUTA. *Hal. testa ovata, antice attenuata, nudato-tumida, spiraliiter striata, striis minutis decussatis; foraminibus subhamptis, quinis pervisi; rubido et flavescente-albidé irregulariter marmorata.*

The showy Haliotis. Shell ovate, anteriorly attenuated, undulated swollen, spirally ridged, ridges very fine, close-set, decussated with minute striae; perforations rather large, five open; irregularly marbled with red and yellowish-white.


_Hab._ Swan River Settlement, New Holland; Lieut. Preston.

In form, and in the character of the perforations, this species bears some resemblance to the H. sanguiuea, though its relation is very remote in other respects.

Species 69. (Mus. Cuming.)

HALIOTIS PAPULATA. *Hal. testa suborbiculata-ovata, spiraliiter obtuso-tirata, irpis subdistantibus, conspicue tuberculatis; foraminibus subtubiferis, quaternis pervisi; caralto-rubido, flavescente variát.*

The pimpled Haliotis. Shell somewhat orbicularly ovate, spirally obtusely ridged, ridges rather distant, conspicuously tuberculated; perforations a little tubiferous, four open; dark coral-red, variegated here and there with patches of yellow.


_Hab._ North coast of Australia; Dring.

The pimpled sculpture of this shell is of a much more prominent character than that of the first three species of the plate.

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Fig. 70.

The shell here figured from the cabinet of Mr. Gray, proves, on further examination, to be the young of H. sanguinea.

Species 70. (Fig. 71, Mus. Cuming.)

**Haliotis ancile.** *H. testa ovata, regulariter concava, spirally striata, nodulosa-striata, nodulis interdum subrufescet, olivaceo-variegato.*

The Martian buckler **Haliotis.** Shell ovate, uniformly convex, spirally faintly nodulously striated, nodules sometimes nearly obscure, interrupted; perforations numerous, small, eight open; olive-green, nodules and around the spire coppery rose-red.

**Reeve, Pro. Zool. Soc., 1846.**

*Hab.?*

An uniform convex shell striated with faint, interrupted, irregular, nodulous strike of a coppery rose hue, with the perforations very small and numerous.

Species 71. (Fig. 72 Mus. Cuming.)

**Haliotis clathrata.** *H. testa semicirculari-ovata, spirally striata, nodulosa-striata, nodulis interdum subexilis et interdum valde irregularibus, olivaceo-variegato.*

The latticed **Haliotis.** Shell semicircularly ovate, spirally closely ridged, interstices very finely latticed with strie, radiately plicated; perforations rather large, five open; variegated with green and bright red.

**Reeve, Pro. Zool. Soc., 1846.**

*Hab. Baclayon, Island of Bohol, Philippines; Cuming.*

An interesting little species finely latticed between the ridges, and strongly plicated immediately around the spire.

Species 72. (Mus. Cuming.)

**Haliotis Jacnensis.** *H. testa oblongo-ovata, spirally striata, nodulosa-striata, olivaceo-variegato.*

The Jacna **Haliotis.** Shell oblong-ovate, spirally peculiarly rudely ridged, ridges very irregular and rather scaly, somewhat smooth next the perforations, which are slightly tuberous and distant; reddish-orange, interior silvery.

**Reeve, Pro. Zool. Soc., 1846.**

*Hab. Jacna, Island of Bohol, Philippines; Cuming.*

A very characteristic species, to which there is little or no approximation in any other.

Species 73. (Fig. 74, Mus. Cuming.)

**Haliotis Stomatiformis.** *H. testa oblongo-ovata, valde convexa, spirally striata, nodulosa-striata, olivaceo-variegato.*

The Stomatia-shaped **Haliotis.** Shell oblong-ovate, very convex, spirally striated, radiately finely plicated, spire nearly terminal, elevated; five perforations open; marbled with olive and green.

**Reeve, Pro. Zool. Soc., 1846.**

*Hab. New Zealand.*

Well distinguished by its conspicuously convex oblong form, resembling in great measure that of some of the Stomatia.
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**HALIOTIS.**

[Temporary Index.]
MONOGRAPH

OF THE GENUS

MANGELIA.

"I named them as they passed, and understood
Their nature, with such knowledge God endued
My sudden apprehension: but in these
I found not what methought I wanted still."—Milton.
**MANGELIA.**

**PLATE I.**

( Figures magnified to two and a half times their natural size )

Genus Mangelia, Leach.

*Testa Marginellaformos aut fusiformis, pleuroque longitudinaliter costata, spirá nana brevi, nana acuminato- turrità; columella labroque intus subtulisimis rugoso- denticulatis, labro incurvato, superà breviter sinuato; canali brevissimo, plus minus lo truncato."

Shell Marginella-shaped or fusiform, mostly longitudinally ribbed, spire sometimes short, sometimes acuminately turrited; lip and columella very finely rugously denticulated, lip thickened, slightly sinuated at the upper part; canal very short, more or less truncated.

M. Deshayes passes a severe and somewhat merited reprimand upon M. Kiener, for having, in genus *Cancellaria* of his 'Iconographie', which professes to illustrate the shells contained in the Lamarckian collection, omitted mention of the *C. thiarella* of that illustrious author, notwithstanding the authority 'mon cabinet' attached to that species in the 'Animaux sans vertèbres'. It would certainly have been desirable if M. Kiener had published his reasons for this omission, for they were probably founded on the discovery that the shell in question is not only not new *Cancellaria* at all, but that it is not referable to any genus hitherto established. Mr. Sowerby had already intimated that this shell belongs to another genus; and M. Deshayes erroneously imagines, from Martini's figure, that it may be the young of *Strombus placentis*.

This "Fusus ad formam citharae compositus" of Martini, *Cancellaria citharella* of Lamarck, has been collected in various states by Mr. Cuming, at the Philippine Islands, together with upwards of fifty other closely allied species, the whole of which are new and display a very striking association of character. In addition to these I have a new one from Australia, one from Sicily, some from the West Indies collected by the Rev. Lansdowne Guilding, and five collected by Capt. Belcher during the surveying expedition of the 'Sulphur', described and figured by Mr. Hinds in the 'Zoology of the Sulphur'. They were found by that eminent traveller under various circumstances, some on the reefs, some in concealed situations under stones, and some at depths varying from three to twenty-five fathoms.

Species 1. (Mus. Cuming.)

*Mangelia Sicula.* Many. testa subfusiformis, spirà acuminata, acutfractibus rotundatis, gibbosiusculae, concentricè costatis, terribus; aperture brevi, ovata, sinu subconspicuo; intus extusque castaneo-fusca, labro flari- cane, fuso-lineato.

The Sicilian Mangelia. Shell somewhat fusiform, spire acuminated, whorls rounded, rather gibbous, concentrically ribbed, smooth, aperture short, ovate, sinus rather conspicuous; dark chestnut-brown within and without, lip yellowish, crossed with fine brown lines.


Hab. Sicily.

I place this species at the commencement of the series as indicating the nearest approach to *Pleurotomus*; oscillating in character between that of the two genera, it might be referred with equal propriety to either.

* Il y a une autre coquille, la *Cancellaria citharella* de Lamarck, et dont M. Kiener ne parle pas dans sa Monographie. Une telle lacune est fréquente dans un ouvrage aussi spécialement consacré à l'illustration de la partie conchylogique des animaux sans vertèbres. M. Sowerby suppose que cette coquille appartient à un autre genre, et si l'on s'en rapporte à la figure citée de Martini, elle ne serait en effet qu'un jeune Strombe. Il apparaîtrait donc à M. Kiener d'éclaircir la science à ce sujet.

And again, "M. Kiener nous laisse dans l'ignorance la plus complète à l'égard de cette espèce de Lamarck. Nous avons toujours cru que l'on des buts que se proposait l'auteur du *Spécies* des coquilles, était de donner des renseignements positifs sur les espèces de Lamarck, mises à sa disposition. En s'abstenant, M. Kiener n'a gratuitement à son ouvrage qui lui aurait donné le plus d'intérêt, non-seulement aux yeux des simples amateurs, qui tous, connaissent les travaux de Lamarck, mais aussi à ceux des personnes qui font de la science d'une manière sérieuse et qui recherchent avec avidité tout ce qui peut les éclaircir sur les espèces de Lamarck. Cette *Cancellaria citharella*, d'après la figure de Martini, nous semble une jeune *Strombus placens* de Lamarck."—Deshayes, *Animaux sans vertèbres*, vol. ix. p. 401 and 407.

May, 1846.
Species 2. (Mus. Cuming.)

**Mangelia vexillum.** *Mang. testa oblongo-ovata, affractibus superius angulatis, longitudinaliter costatis, costis subobliquis, ad angulam incrasatis; castaneo-fusca, luteo-annulatis, labro albicante.*

**Mangelia lyra.** *Mang. testa trigono-fusiformi, affractibus superius angulatis, longitudinaliter costatis, costis subobliquis, ad angulam incrasatis; castaneo-fusca, luteo-annulatis, labro albicante.*

**Mangelia antillarum.** *Mang. testa subpyriformi-ovata, labriolata, longitudinaliter concentrici costata, costis fortibus, subobliquis, distantes; cinereo-castanea, costis fasciis rubidis tinctor, labro albicante, rubido fasciatis tinctor.*

**Mangelia citharella.** *Mang. testa fusiformi-ovata,* anfractibus superius angulato-depressis, longitudinaliter costatis, costis et suturis descendentes, ad angulum nodosis, levibus, interstices subtilissime elevato-strictis, albidâ, costis lateralibus linearis at fasciatis.

**The Little Harp Mangelia.** Shell fusiformy ovate, whorls angular, depressed at the upper part, longitudinally ribbed, ribs descending from the sutures, no-dose on the angle, smooth, interstices very finely elevately striated; white, ribs lincated and banded with yellowish-red.

**Cancellaria citharella.** Lamarek.


**Hab.** Ilo Ilo, Isle of Panay, Philippines (found under stones); Cuming.

A pretty marked species of a bright orange-yellow colour, banded with white like a miniature Orange-flag Volute; the minute decussated sculpture of the surface is also characteristic.

Species 3. (Mus. Cuming.)

**Mangelia lyra.** *Mang. testa trigono-fusiformi, affractibus superius angulatis, longitudinaliter costatis, costis subobliquis, ad angulam incrasatis; castaneo-fusca, luteo-annulatis, labro albicante.*

**Mangelia citharella.** *Mang. testa fusiformi-ovata,* anfractibus superius angulato-depressis, longitudinaliter costatis, costis et suturis descendentes, ad angulum nodosis, levibus, interstices subtilissime elevato-strictis, albidâ, costis lateralibus linearis at fasciatis.

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**Cancellaria citharella.** Lamarek.


**Hab.** Ilo Ilo, Isle of Panay, Philippines (found under stones); Cuming.

Having already spoken of this species in my introductory observations, at the commencement of the genus, it only remains to notice that it was figured by Martini, in 1789 under the head of "Fusi ad foram cithara compositi," and referred by Lamarek to the genus Cancellaria under an impression that the faint wrinkle-like dentilations of the columella, which are only developed in the mature shell, are indelent with the plaits which wind round the columnella of the Cancellaria throughout its entire growth. To make his shell accord with the generic character of Cancellaria Lamarek described the columella as being "multipli\-cata, plieis tenuissimis;" it will be found however, on examination, that they are not plaits at all, but one of several characteristic peculiarities of growth and sculpture which are more or less variably developed throughout the whole of the species here associated under the title of Mangelia.

Species 6. (Fig. a and b Mus. Cuming.)

**Mangelia Marginelloides.** *Mang. testa pyriformi-ovata, spiril brevi, acuta; affractibus superius angulatis, longitudinaliter multicosatibus, costis tenuibus, crebris, suturis descendentibus, lacteo-albicantibus et cinereo-fusco, lineis rubris incrasatis, affractis ultimis parte supra angulum maclulata grandi nigricante coeispici in tinctor.*

**The Marginella-like Mangelia.** Shell pyriformly ovate, spire short, acute; whors angulated at the upper part, longitudinally many-ribbed, ribs thin, close-set, descending from the sutures; milky bluish colour, or ashby brown, encircled with ruddy lines, portion of the last whor above the angle conspicuously stained with a blackish blister.


**Hab.** Island of Barias, Philippines (found in sandy mud at the depth of seven fathoms); Cuming.

This is an extremely interesting species having the typical form of a Marginella, and almost as highly polished in front from the abundant secretion of enamel which paves the vicinity of the aperture.

For species 7. see Plate II.
MANGELIA.

PLATE II.

(Specimens magnified to two and a half times their natural size.)

Species 7. (Mus. Cuming.)

**Mangelia funiculata.** *Mus. testa trigono-fusiformi, subelongata, anfractibus supcrnè depressis, longitudinalliter tenuecostatis, lecbmis; cinereo-fusco, costis labroque albicantibus.*

**The corded Mangelia.** Shell trianqularly fusiform, rather elongated, whorls depressed at the upper part, longitudinally, finely ribbed, smooth; ash y brown, ribs and outer lip white.


Hab. Islands of Ticao and Masbate, Philippines (found on the sands); Cuming.

The fine smooth white ribs of this species, on a dark ground, give the shell the appearance of being strung with longitudinal cords.

(Species 8. (Mus. Cuming.)

**Mangelia cavernosa.** *Mus. testa oblongo-ovata, spirá angulato-inrillát; anfractibus supcrnè angulatis, intraco costis cavernosis, costis fortibus, obtusis, et suturis descendentibus; albá, aurantio-fusco hic illíc sparsius maculatá.*

**The cavernous Mangelia.** Shell oblong-ovate, spire angularly turreted; whorls angulated at the upper part, cavernous between the ribs, ribs strong, obtuse, descending from the sutures; white, sparingly spotted here and there with orange-brown.


Hab. Island of Ticao, Philippines (found on the sands); Cuming.

The orange-brown spotting is mostly on the cavernous portion of the whorls above the angle.

Species 9. (Mus. Cuming.)

**Mangelia cylindrica.** *Mus. testa cylindraceo-fusiformi, apice obtuta, longitudinaliter subtilissimis costatís, transversinie levato-striatis; pellucido-albá, fuscosecent iacé, aurantio-fusco infra suturas maculatá.*

**The cylindrical Mangelia.** Shell cylindrically fusiform, sharp at the apex, longitudinally finely ribbed, transversely elevated striated; transparent white, stained with pale brown, spotted beneath the sutures with orange-brown.


Hab. Cagayan, Island of Mindanao, Philippines (found in sandy mud at the depth of twenty-five fathoms); Cuming.

The orange-brown spots, as in the former species, are arranged round the upper portion of the whorls beneath the sutures.

Species 10. (Mus. Cuming.)

**Mangelia capillacea.** *Mus. testa ovato-fusiformi, spirá suturis profundiis; anfractibus supcrnè depressis, transversinie subtilissimis et creberribus elevato-striatis, longitudinaliter costatis, costis angustis, subelevatis, supcrnè leviter maccRonatis; fuscosecenta, lineis subtilibus fuscosecentibus zonatá.*

**The hair-girt Mangelia.** Shell ovately fusiform, sutures of the spire deep; whorls depressed at the upper part, transversely very finely and closely elevately striated, longitudinally ribbed, ribs narrow, somewhat crested, a little pointed at the top; light brown, zoned with fine brown lines.


Hab. Island of Burias, Philippines, (found among coarse sand at the depth of seven fathoms); Cuming.

Encircled with fine brown lines which on the summit of the raised striae have the appearance of hair.

Species 11. (Mus. Cuming.)

**Mangelia gracilis.** *Mus. testa gracili-fusiformi, transversinie subtilissimis striati, longitudinaliter costatá, costis angustis; albá, castaneo-fusco indistincte zonatá et maculatá.*

**The slender Mangelia.** Shell slenderly fusiform, transversely very finely striated, longitudinally ribbed, ribs narrow; white, indistinctly zoned and blotched with chestnut-brown.


Hab. Island of Ticao, Philippines (found under stones at low water); Cuming.

The peculiarities of this shell are very briefly defined, but they are not, on that account, less characteristic of a very distinct and elegantly formed species. The brown

May, 1846.
zoned painting is most conspicuous on the back of the last whorl, where it forms a rude blotch.

Species 12. (Mus. Cuming.)


The lamellated Mangelia. Shell fusiformly ovate, sutures of the spire deep, a little cavernous; whorls transversely elevately striated, suture strong, rather distant, longitudinally ribbed, ribs narrow, erect, lamella-like, slightly pointed at the top; white, zoned with very pale brown.

*Hab.* Isle of Burias, Philippines (found among coarse sand at the depth of seven fathoms); Cuming.

Chiefly distinguished by the narrow elevated lamella-like character of the ribs.

Fig. 13. (Mus. Cuming.)

Mangelia gracilis. *Var.* 3. I had figured this shell as a species distinct from the *M. gracilis*, but upon further examination, am inclined to think that it is merely a variety, with the transverse strie more strongly developed, and the longitudinal ribs less so.

For Species 13 see Plate V.

Species 14. (Mus. Cuming.)


The riband-bound Mangelia. Shell oblong-ovate, somewhat conical, spire short, obtuse; whorls longitudinally ribbed, interstices between the ribs latticed with strong striæ; whitish, encircled with broad olive-brown bands, the coloured portion of the ribs being dotted with white.

*Hab.* Island of Ticao, Philippines (found on the sands); Cuming.

An interesting species so distinct from any other I have met with, that it may be recognised without difficulty.
MANGELIA.

PLATE III.

(Figures magnified to two and a half times their natural length.)

Species 15. (Mus. Cuming.)


The zoned Mangelia. Shell shortly fusiform, spire rather short, turreted, sutures deep; whorls longitudinally ribbed, ribs descending from the sutures; smooth; white, encircled with a conspicuous zone of orange brown.


*Hab.* Island of Ticao, Philippines (found on the sands); Cuming.

A delicate white shell, encircled throughout with a dark orange-brown zone.

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Species 16. (Mus. Cuming.)

Mangelia interrupta. *Mang. testa oblongo-ovatâ, spirata brevi, anfractibus superne nodosis, costis e nodis descendentibus; albâ, liavis nigris subtillisinis transversis interruptis, crebrinâ disquisite, inter costis ornatâ.

The interrupted Mangelia. Shell oblong-ovate, spire short, whorls nodose round the upper part, with ribs descending from the nodules; white, ornamented between the ribs with very fine interrupted transverse black lines, ranging very close to one another.


*Hab.* Island of Ticao, Philippines (found on the sands); Cuming.

A very significant character is here displayed, in the interstices between the ribs being painted with short black hair lines.

---

Species 17. (Mus. Cuming.)

Mangelia reticulata. *Mang. fusiformis-ovatâ, spirata brevissimâ, apice aeminitâ; anfractibus superne perpendiculariter compressis, deinde tumidiusculis et longitudinaliter costatis, costarum interstis obliquè reticulatis; albida, cinereo pallide zonata, costis exilitis fusco-punctatis.

The reticulated Mangelia. Shell fusiformly ovate, spire rather short, acuminate at the apex; whorls perpendicularly compressed round the upper part, then a little swollen and longitudinally ribbed, interstices between the ribs faintly obliquely reticulated; whitish, zoned with pale ash, ribs faintly dotted with brown.


*Hab.* Island of Ticao, Philippines (found on the reefs); Cuming.

This species is distinguished by a peculiar perpendicular depression of the upper portion of the whorls, together with the faint reticulated sculpture of the interstices between the ribs. The colouring is also characteristic.

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Species 18. (Mus. Cuming.)


The pretty Mangelia. Shell fusiformly ovate, somewhat cylindrical, spire rather short, acuminate at the apex; whorls rounded at the upper part, longitudinally many-ribbed, ribs thin, slender, arranged concentrically; entire surface of the whorls very faintly reticulated; yellowish-white, encircled throughout in the interstices between the ribs, with hands of small square red spots.


*Hab.* Island of Ticao, Philippines (found on the sands); Cuming.

An extremely pretty species, strikingly tessellated throughout with bright square red spots.

---

Species 19. (Mus. Cuming.)

Mangelia fusiformis. *Mang. testa fusiformi, anfractibus superne subangulatis, ad angulum nodosis, costis tenuiorâ subsuperficiâris e nodis descendentibus, trans-

May, 1846.
MANGELIA.—PLATE III.

versim creberrius, striatis; luteo-albicante, punctis perpaucis aurantiaco-fuscis tincta.

The fusiform Mangelia. Shell fusiform, whorls slightly angulated round the upper part, nodose at the angle, with thin rather superficial ribs descending from the nodules, transversely very closely striated; yellowish white, stained with orange brown.


Hab. Isle of Corrigidor, Philippines (found among coarse sand at the depth of ten fathoms); Cuming.

The orange-brown spots which characterize this species, are few in number, and very faintly indicated.

Species 20. (Mus. Cuming.)

Mangelia lyrca. Mang. testa ovato-conica, spirula brevissima; anfractibus superne gibbosis et nodulosus, longitudinaliter costatis, levigatis; cinereo-albicante, lineis aurantiaco-fuscis exilibus cinctatis, dorso superne nigrante tincta.

The hunch-backed Mangelia. Shell ovately conical, spire very short; whorls gibbous and nodulous round the upper part, longitudinally ribbed, smooth; ashy white, encircled with faint orange-brown lines, back stained with pale black at the upper part.


Hab. Island of Ticao, Philippines (found on the reefs); Cuming.

A short conical shell characterized by very faint brown hair lines, and a dark neutral tint blotch on the back at the summit of the last whorl.
MANGELIA.

PLATE IV.

(Figures magnified to two and a half times their natural length.)

Species 22. (Mus. Cuming.)

MANGELIA MACULATA. Mang. testa subfusiformis, basis truncata, longitudinale costatæ, costis, tenuibus sub-distantibus, concentricæ disposition.; sinus latiusculis; albus, maculis subquadraatis aurantio-fusco inter costas.

The spotted MANGELIA. Shell somewhat fusiform, truncated at the base, longitudinally ribbed, ribs thin, rather distant, concentrically arranged; sinus rather broad; white, with somewhat square orange-brown spots between the ribs.


Hab. Island of Ticao, Philippines (found under stones at low water); Cuming.

The orange-brown spots which constitute one of the distinguishing features of this species are very characteristic on the last whorl, but on the upper whorls only the upper portion of them remain visible.

Species 23. (Mus. Cuming.)

MANGELIA TURRICULA. Mang. testa fusiformi-turritæ, suturis profusâ; anfractibus plano-depressis, longitudinale concentricæ costatis; albicante, lineis subtilissimis aurantio-fuscis obsolètæ cingulatæ.

The little tower MANGELIA. Shell fusiformly turrited, sutures deep; whorls flatly depressed, longitudinally concentrically ribbed; whitish, obsoletely encircled with very fine orange-brown lines.


Hab. Island of Ticao, Philippines (found on the sand); Cuming.

The orange-brown lines above described are too faintly indicated to be represented in the figure, indeed they are but just discernible with the lens.

Species 24. (Mus. Cuming.)

MANGELIA COLUMBELLIOIDES. Mang. testa ovata, spiræ brevi, acetâ; anfractibus superne leviter rotundatis, transversum elevato-spirale, longitudinale lenticulassati, labro medio tenuido, intus fortiter denticulato; nivea, costis extusque aurantio-fusco punctatis.

The COLUMBELLIA-LIKE MANGELIA. Shell ovate, spire short, acute; whorls slightly rounded at the upper part, transversely elevated, longitudinally finely ribbed, tip swollen in the middle, strongly denticulated within; snowy white, ribs delicately dotted with orange-brown.


Hab. Baclayon, Island of Bohol, Philippines (found on mud banks); Cuming.

An extremely interesting species distinguished by its Columbella-like structure, and faint dotted colouring of the ribs.

Species 25. (Mus. Cuming.)

MANGELIA CONOHELICOIDES. Mang. testa ovato-conicâ, spiræ brevissimâ, acetâ; anfractibus transversi elevato-spirale, longitudinale multirradiâ, liris tenuissimâ, ante suturâs exanulis; latere albicante, dorso maculâ grandi aurantio-fuscâ interdum tincta.

The CONOHELIX-LIKE MANGELIA. Shell ovately conical, spire very short, acute; whorls transversely elevated, longitudinally many-ringed, ridges thin, fading before the sutures; yellowish-white, back sometimes stained with a large orange-brown blotch.


Hab. Daleguete, Isle of Zebu, Philippines (found under stones); Cuming.

Distinguished by that peculiar conical form, which is typified in the Mitres, separated by Mr. Swainson under the title of Conohelix.

Species 26. (Mus. Cuming.)

MANGELIA TENEBSROSA. Mang. testa subfusiformis, spiræ acuminato-turritæ; anfractibus superne plano-depressis, suturis profusâ, transversis striatis, longitudinale costatis, costis distantibus; intus extusque castaneo-fuscâ.

The dark MANGELIA. Shell somewhat fusiform, spire acuminately turrited; whorls flatly depressed at the top, sutures deep; transversely striated, longitudinally ribbed, ribs distant; dark chestnut brown within and without.

May, 1846.
_Hab._ Cagayan, Island of Mindanao (found in sandy mud at the depth of twenty-five fathoms); Cuming.  
A dark brown sharply turreted deep-water species.

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**Species 27. (Mus. Cuming.)**

**Mangelia Nové Hollandié.** _Mang. testá ovatá, inferior attenuátá, subconicá, spirá brevi; anfractibus superné rotundátis, longitudinaliter obliquè costátis; livido-cinereá, apice basique nigricantibus, labro albido, aperture fuscá._

**The New Holland Mangelia.** Shell ovate, attenuated at the lower part, somewhat conical, spire short; whorls rounded at the upper part, longitudinally obliquely ribbed; livid ash-colour, base and apex blackish, lip whitish, interior of the aperture brown.

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**Species 28. (Mus. Cuming.)**

**Mangelia livida.** _Mang. testá subfusiformi-ovatá, apice acuminatá; anfractibus longitudinaliter concentricè costátis, costis tenuibus; livido-carné._

**The Livid Mangelia.** Shell somewhat fusiformly ovate, acuminated at the apex, whorls longitudinally concentrically ribbed, ribs thin; livid flesh-colour.

_Hab._ Swan River.  
A very characteristic species exhibiting a curious variety of dingy colouring.

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**Species 28. (Mus. Cuming.)**

**Mangelia livida.** _Mang. testá subfusiformi-ovatá, apice acuminatá; anfractibus longitudinaliter concentricè costátis, costis tenuibus; livido-carné._

**The Livid Mangelia.** Shell somewhat fusiformly ovate, acuminated at the apex, whorls longitudinally concentrically ribbed, ribs thin; livid flesh-colour.

_Hab._ Island of Ticao, Philippines (found on the reefs); Cuming.  
A livid flesh-coloured shell, simply longitudinally ribbed.
MANGELIA.

PLATE V.

(Specimens magnified to two and a half times their natural length.)

Species 13. (Mus. Cuming.)
Mangelia pyramidalis. *Mang. testá pyramidalis, turritá, longitudinaliter costatá, costarum interstítiiis striatíis; apertura manubré, breví; albá.*

The pyramidal Mangelia. Shell pyramidal, turreted, longitudinally ribbed, interstices between the ribs striated; aperture small, short; white.

*Hab.* Island of Mindoro, Philippines; Cuming.

Of a somewhat hexagonal form, arising from the ribs following one under the other.

Species 29. (Mus. Cuming.)

Dyson’s Mangelia. Shell ovate, spire rather short, whorls rounded at the upper part, longitudinally very closely finely ribbed, decussated with transverse striæ; whitish, encircled with two faint bands of orange-brown.

*Hab.* Honduras (found on the sands); Dyson.

The ribs being decussated with striæ have a slightly granular appearance.

Species 30. (Mus. Cuming.)

The deep-dwelling Mangelia. Shell oblong-ovate, conspicuously attenuated at both ends, longitudinally ribbed, encircled with raised lines; whitish, zoned with brown.

*Hab.* Pro. Zool. Soc., 1846. *Hab.* Island of Mindanao, Philippines (found in sandy mud at the depth of twenty-five fathoms); Cuming.

Peculiarly attenuated at both ends, and corded throughout with raised striæ.

Species 31. (Mus. Cuming.)
Mangelia bicolor. *Mang. testá oblongá, concentricí costatá, costarum interstítiiis subtilissimá striatís; supra albídá, infra plumabéd.*

The two-coloured Mangelia. Shell oblong, concentrically ribbed, interstices between the ribs very finely striated; white above, lead colour below.

*Hab.* Island of Ticao, Philippines; Cuming.

Distinguished in some measure by its conspicuous contrast of colour.

Species 32. (Mus. Cuming.)
Mangelia funebris. *Mang. testá oblongá, concentricí costatá, costarum interstítiiis levíbus; albídá, fasciá plumabéd latí cingulatá.*

The mourning Mangelia. Shell oblong, concentrically ribbed, interstices between the ribs smooth; whitish, encircled with a broad lead-coloured band.

*Hab.* Pro. Zool. Soc., 1846. *Hab.* Island of Ticao (found under stones at low water); Cuming.

The spire is rather more elevated than in the former species, and the shell has altogether a different aspect.

Species 33. (Mus. Cuming.)
Mangelia Stromboides. *Mang. testá fusiformi-ovátá, spirá subturritá; anfractibus superne angulatis, longitudinaliter costatis, costis ad angulum nodosis, interstítiiis subtilissimá striatís; albídá.*

The Strombus-like Mangelia. Shell fusiformly ovate, spire somewhat turreted; whorls angulated round the upper part, longitudinally ribbed, ribs nodose at the angle, interstices very finely striated; whitish.


Mr. Cuming possesses a specimen of this shell from the Red Sea, collected by Dr. Rappell.

Species 34. (Mus. Cuming.)
Mangelia pallida. *Mang. testá ovátá, concentricí costatá, costis subobtusís; albídá.*

The pale Mangelia. Shell ovate, concentrically ribbed, ribs rather obtuse; white.

June, 1846.
MANGELIA.—Plate V.


Hab. Island of Ticao, Philippines; Cuming.

A small white species with stout concentric ribs.

Species 35. (Mus. Cuming.)

*Mangelia tenuata.* *Maug. testa oblongo-fusiformi, levis-siná, longitudinaliter plicato-costátá; albítá aut intus-cente, lineis fuscis conspicuè cingulátá.*

**The filleted Mangelia.** Shell oblong-fusiform, very smooth, longitudinally plicately ribbed; whitish or yellowish, conspicuously encircled with brown lines.

*Pleurotoma tenuata,* Deshayes, Expéd Moreé p. 178.

*Pleurotoma eburneum,* Bivon.

Hab. Mediterranean.

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A smooth yellowish species encircled with fine brown lines.

Species 36. (Mus. Cuming.)

*Mangelia crassilabrum.* *Maug. testá oblongá, spirá brevi, subturrítá, anfractibus supernè rotundatis, longitudinaliter crebricostátis; labro valdé incrassato; plumbó-fusciatá, obscurè súltissimè albilineatá.*

**The thick-lipped Mangelia.** Shell oblong, spire short, a little turreted, whorls rounded at the upper part, longitudinally closely ribbed; lip more than usually thickened; lead colour or banded with lead colour, crossed with numerous obscure fine white lines.

Hab. Islands of Ticao and Bohol, Philippines; Cuming.

Distinguished by its swollen lip.
MANGELIA.

PLATE VI.

(Specimens, except Figs. 37 and 39, magnified to two and a half times their natural length.)

Species 37. (Mus. Belcher.)

MANGELIA ORYZA. Mang. testa attenuata, acuminata, levigata, nutila, hexagono plico-costulata; anfractibus septenis; albidis.

The rice-grain MANGELIA. Shell attenuated, acuminated, smooth, shining, hexagonally plicately ribbed; whorls seven in number; whitish.


Hab. North coast of New Guinea (from twenty-two fathoms, mm); Hinds.

The figure of this species is of the natural size.

Species 38. (Mus. Cuming.)

MANGELIA PESSULATA. Mang. testa cylindraceo-oblonga, spirata brevisculata, longitudinaliter eximia subobliqua costata, costarum interditiis subtilissimis striatis; nivea.

The barred MANGELIA. Shell rather cylindrically oblong, spire rather short; longitudinally delicately rather obliquely ribbed, interstices between the ribs very finely striated; snowy white.

REEVE, PRO. Zool. SOC., 1846.

Hab. Philippine Islands; Cuming.

The sculpture of this shell is of a most delicate character.

Species 39. (Mus. Belcher.)

MANGELIA CINNAMOMEA. Mang. testa attenuata, nutila, cinnamomea, albidasciata; anfractibus semis, plico-costulatis, transversim levissimis striatis.

The cinnamon MANGELIA. Shell attenuated, smooth, cinnamon-coloured, white-banded; whorls six in number, plicately ribbed, transversely obsoletely striated.


Hab. North coast of New Guinea, Straits of Macassar, and Malacca (from five to twenty-two fathoms, mm); Hinds.

Of the natural size, from Mr. Hinds' figure.

 Musik. (Mus. Belcher.)

MANGELIA RIGIDA. Mang. testa ovata, longitudinatiter fortiter tuberculato-costulata, transversim subtilissimis striatid; fuscescens.

The Rigid MANGELIA. Shell ovate, longitudinally strongly tubercularly ribbed, transversely very finely striated; light brown.


Hab. Aegean Sea; Forbes.

I cannot identify this with any of the Mediterranean species of PLENIDONIA hitherto described.

Species 41. (Mus. Cuming.)

MANGELIA ELEGANS. Mang. testa oblonga, spirata brevisculata, acuminata, anfractibus superius angulatis, longitudinatiter costatis, costis angustatis, ad angulan macro-natis, costarum interditiis pulcherrimis elevato-striatis; latiscente-albidos, exilissime fusco-zonatis.

The elegant MANGELIA. Shell oblong, spire rather short, acuminated, whorls angulated at the upper part, longitudinally ribbed, ribs narrow, pointed at the angle, interstices between the ribs very beautifully elevated and striated; yellowish white, very faintly zoned with brown.

REEVE, PRO. Zool. SOC., 1846.

Hab. Island of Mindoro, Philippines; Cuming.

An interesting species most delicately sculptured.

Species 42. (Mus. Cuming.)

MANGELIA LINEATA. Mang. testa ovata, spirata acuminata; concentrico oblongo-costata, levigata; carneo-fuscescente, lineis sativatoribus modique cingulata.

The lineated MANGELIA. Shell ovate, spire acuminated; concentrically obtusely ribbed, smooth; fleshy brown, cirecircled throughout with hues of a darker tint.


Hab. —?

The transverse lines which characterize this species are somewhat faintly indicated.

Species 43. (Mus. Cuming.)

MANGELIA PLANTILABRUM. Mang. testa fusiformi, utrinque acuminata, levigata, anfractibus superius depressis, longitudinatiter costatis; labro planulato, supra subangulata; cinereo-purpurea, albi-zonata.

The flat-lipped MANGELIA. Shell fusiform, acuminated at both ends, very smooth, whorls depressed round the upper part, longitudinally ribbed; lip flattened, slightly angulated above; ashy purple, zoned with white.

June, 1846.
MANGELIA.—Plate VI.


Hab. Island of Ticao, Philippines; Cuming.

An extremely pretty and characteristic species.

Species 44. (Mus. Cuming.)

Mangelia ponderosa. *Mang. testá ovatá, spirá breviusculá, acuminátá, aseptátus convexis, livis ermissis longitudinálibus stríisque transversis elongátere clathrátis; labro valde incrassato; albicarde, maculós perpænis fuscí tinctis.

The ponderous Mangelia. Shell ovate, spire rather short, acuminate, whorls convex, latticed with transverse striae and delicate longitudinal ridges; lip very much thickened; whitish, stained with a very few brown spots.

Hab. Island of Burias, Philippines (found among coarse sand at the depth of seven fathoms); Cuming.

A fine species with the surface delicately latticed with ridges and raised striae.

Species 45. (Mus. Cuming.)


The Ginannia Mangelia. Shell pyramidally acuminate, concentrically tubercularly ribbed, smooth, aperture rather short; yellowish flesh-colour.


Pleurotoma Ginanniana, Scacchi.

Hab. Mediterranean.

Sometimes of a dull leaden colour.

Species 46. (Mus. Cuming.)


Bertrand’s Mangelia. Shell oblong, somewhat turreted, smooth, shining, longitudinally ribbed; purple-brown, ribs base and lip white.


Hab. Mediterranean.

It is scarcely necessary to observe that this species is quite distinct from the *Pleurotoma Tanquei*, which should also be referred to this genus.

Species 47. (Mus. Cuming.)


Hornbeck’s Mangelia. Shell ovate, spire rather short, acute, sutures deep, somewhat cavernous, longitudinally ribbed, ribs prominent, transversely very minutely striated; white.


Hab. Island of St. Thomas, West Indies; Dr. Hornbeck.

Distinguished by the prominent character of the ribs, and the depth of the sutures.

Species 48. (Mus. Metcalfe.)


The chesnut Mangelia. Shell oblong, spire acuminate; concentrically finely ribbed, interstices between the ribs striated; chesnut-brown.


Hab. Island of Burias, Philippines; Cuming.

An ovate subfusiform shell of a bright chesnut colour.
MANGELIA.

PLATE VII.

(Specimens, except Figs. 49 and 51, magnified to twice their natural length.)

Species 49. (Mus. Belcher.)

Mangelia celebensis. Mang. testa attenuata, levigata; pallidus, fusco latè fasciata; anfractibus sensis, plico-costulatis; costulis subdistantibus.

The pretty Mangelia. Shell attenuated, smooth, pale, broadly banded with brown, whorls six in number, plicately ribbed; ribs rather distant.


Represented of the natural size.

Species 50. (Mus. Cuming.)

Mangelia fusilla. Mang. testa fusiformi-ovata, levigata, longitudinaliter costata, costis solidissimis obtusiis; albidus, constans copiosis tincti et lineatis.

The small Mangelia. Shell fusiformly ovate, smooth, longitudinally ribbed, ribs rather solid, obtuse; whitish, copiously stained and lined with chesnut-brown.


The ribs are mostly of lighter colour than the ground of the shell.

Species 51. (Mus. Belcher.)

Mangelia coronata. Mang. testa attenuata, acuminata; anfractibus sensis plico-costulatis, transversis striatis; costulis superficie subacuminatis.

The coronated Mangelia. Shell attenuated, acuminated; whorls six in number, plicately ribbed, transversely striated, ribs somewhat acuminated at the upper part.


From Mr. Hinds' figure of the natural size.

Species 52. (Mus. Gray.)

Mangelia fasciata. Mang. testa ovata, utrinque attenuata, anfractibus superficie rotundatis, longitudinaliter costatis, striis conspicuis transversis cluturatis; albida aut intuscente, fuscida rubida angustia cingulata.

MANGELIA.

The banded Mangelia. Shell ovate, attenuated at both ends, whorls rounded above, longitudinally ribbed, latticed with conspicuous transverse striae; whitish or yellowish, encircled with a narrow reddish band.

Gray, MSS. (Private cabinet.)

Hab. Africa.

Characterized by its short attenuated growth at the base.

Species 53. (Mus. Cuming.)

Mangelia vittata. Mang. testa fusiformi-ovata, utrinque peculiariter attenuata, longitudinaliter eximii costellata, transversis subtilissimis finiculata; albidus, fusco aut rubido-fusco lineata et fasciata.

The filleted Mangelia. Shell fusiformly ovate, peculiarly attenuated at both ends, longitudinally delicately ribbed, transversely very finely corded; whitish, lineated and banded with brown or reddish brown.

Hinds, Moll. Voy. Sulphur. p. 26. pl. 9. f. 3. Hab. Island of Luzon, Philippines (found in sandy mud at the depth of seven fathoms); Cuming.

An elegantly formed species, distinguished by the peculiar delicacy of the ribs and transverse striae.

Species 54. (Mus. Cuming.)

Mangelia marmorosa. Mang. testa ovata, solidissimulus, spiræ brevissimæ; longitudinaliter costata, costis obesis, striis elevatis, decussatis; sima ampla, albæ, aurantiofusco perparece maculata.

The marble Mangelia. Shell ovate, rather solid, spire rather short; longitudinally ribbed, ribs stout, crossed with raised striae; white, very sparingly spotted with orange brown.


A solid white marble-like shell, with one or two scattered orange-brown spots on the back.

Species 55. (Mus. Cuming.)

Mangelia casta. Mang. testa ovato-turrata, longitudinaliter costata, costis tenuibus subdistantibus, levigata;

June, 1846.
apertura brevi, basi truncata; carneo-fusca, obscure
fusciata, costis albo-punctatis.

**The Chaste Mangelia.** Shell ovately turrited, longitudi-
nally ribbed, ribs fine, rather distant, smooth, aperture short, base truncated; fleshy brown, obscurely
banded, ribs whitish.


*Hab. — ?*

Peculiarly truncated at the base.

---

Species 58. (Mus. Cuming.)

*Mangelia obeliscus.* *Mang.* testá subulátá, hexagóna,
basi truncatá, striis pulcherrimis elevatis et distantis, longi-
tudinally costatá, costis distantiis, sequentibus; aperturá minitá, ovatá; sor-didi alba, apertura fauce intescente.

**The Obelisk Mangelia.** Shell subulate, six-sided, truncated at the base, very closely encircled through-
out with beautiful raised striae, longitudinally ribbed, ribs following one under the other; aperture minute, ovate; dull white, interior of the aperture yellowish.


*Hab. Island of Corrigidor, Philippines (found among
course sand at the depth of ten fathoms); Cuming.*

An interesting species remarkably characterized by its
erect obelisk-like growth.

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Species 59. (Mus. Metcalfe.)

*Mangelia asticta.* *Mang.* testá subfusiformi-ovatá, spirá brevisculá, suturis profundo; longitudinale costatá, costis angustis, distantiis; alba, zona fusca angustá cingulatá.

**The Tied Mangelia.** Shell somewhat fusiformly ovate, spire rather short, sutures deep; longitudinally ribbed, ribs rather close-set; whitish, encircled with a narrow
brown zone.


*Hab. — ?*

The ribs of this species present an unusually numerous
aspect on the spire.
MANGELIA.

PLATE VIII.

(Specimens magnified to two and a half times their natural length.)

Species 60. (Mus. Cuming.)

Mangelia badia. Mang. testa fusiformi-ocata, concentricè plicata-costata, transversi vel fortiter striata; castaneo-fuscâ.

The brown Mangelia. Shell fusiformly ovate, concentrically plicated ribbed, transversely strongly striated; chestnut-brown.


Hab. ——?

Of a uniform dark brown colour.

Species 61. (Mus. Cuming.)

Mangelia pellucida. Mang. testa ovata, strigue attenuata, lenticulata, niiata, longitudinâlter crebricostata; alba, basi fusca.

The transparent Mangelia. Shell ovate, attenuated at both ends, smooth, transparent shining, longitudinally closely ribbed, whitish, brown at the base.


Hab. ——?

A delicate transparent shell, swollen in the middle.

Species 62. (Mus. Cuming.)

Mangelia angulata. Mang. testa fusiformi-ocata, anfractibus medio peculiariter angulatis, costis profundiis, longitudinâlter costatis, costis angulus super umbrina-tis; alba, fuscoscent lineata.

The anfractuated Mangelia. Shell fusiformly ovate, whorls peculiarly angulated in the middle, sutures deep, longitudinally ribbed, ribs pointed over the angles; whitish, lineated with pale brown.


Hab. Bay of Manila (found in sandy mud at the depth of four fathoms); Cuming.

An interesting form, distinguished by the very peculiar angularity of the whorls.

Species 63. (Mus. Metcalfe.)

Mangelia pura. Mang. testa oblongo-ocata, spirâ sub-turritâ, suturis profundiis; anfractibus concentricè costatis; alba, maculis per punctis aurantio-fuscis.

The pure Mangelia. Shell oblong-ovate, spiral somewhat turreted, sutures rather deep; whorls concentrically ribbed; whitish, with a very few orange-brown spots.


Hab. ——?

There is merely a faint row of dots on the back of the last whorl.

Species 64. (Mus. Cuming.)

Mangelia solida. Mang. testa cylindraceo-ocata, strigue attenuata, solidâ, nuidique crebrinè grano-so-clathratâ; aperturâ longinscatâ; fuscoscent.

The solid Mangelia. Shell cylindrically ovate, attenuated at both ends, solid, very closely granosely latticed throughout; aperture rather long; purplish.


Hab. Island of Burias, Philippines (among sand at the depth of seven fathoms); Cuming.

A peculiarly solid, finely granulated shell.

Species 65. (Mus. Cuming.)

This shell proves, on a second examination, to be a Mangelia vittata.

Species 66. (Mus. Cuming.)

Mangelia delicta. Mang. testa ovata, longitudinâlter fortiter concentricè costata, transversim subobsolète striata; fuscoscent.

The forsaken Mangelia. Shell ovate, longitudinally strongly concentrically ribbed, transversely rather obsoletely striated; light brown.


Hab. ——?

A strong ribbed species of ordinary form.

Species 67. (Mus. Gray.)

Mangelia Coniformis. Mang. testa ovato-conici, tenui, subpellucida, spirâ brevissimâ; anfractibus transversis subtilissimâ striatis, superne exiliter plicato-crenatis; albâ.

June, 1846.
The cone-shaped Mangelia. Shell ovately conical, thin, rather transparent, spire very short, whorls transversely very finely striated, faintly plicately crenated round the upper part; white.

Gray, MSS. (Private cabinet).

Hab. ?

An interesting species, which may readily be distinguished by its conical form.

Species 68. (Mus. Cuming.)

Mangelia zebuensis. Mang. testa ovato-oblonga, spirâ acuminata, basi subattenuatâ, concentricâ fortiter costata, transversim crenata striata; fuscescente.

The Zebu Mangelia. Shell ovately oblong, spire acuminated, a little attenuated at the base, concentrically ribbed, transversely very closely striated; pale brown.


Hab. Island of Zebu, Philippines (found in sandy mud at the depth of four fathoms); Cuming.

Of simple structure, but specifically distinct from any of the former.

Species 69. (Mus. Cuming.)

Mangelia cincta. Mang. testa subfusiformi-ovata, spirâ turritâ, suturis subprofundisd; anfractibus supernâ angulatis, longitudinaliter oblique costatis, costis distantibus; albida, anfractibus fusciâ latâ, fuscescentâ supernâ cinctis.

The girdled Mangelia. Shell somewhat fusiformly ovate, spire turreted, sutures rather deep; whorls encircled round the upper part with a broad light brown band.


Hab. Island of Bohol, Philippines (found under stones at low water); Cuming.

The ribs are unusually distant, and impart a hexagonal character to the shell.

Species 70. (Mus. Metcalfe.)

Mangelia digitale. Mang. testâ fusiformi-ovata, solidâ, undique creberrimâ granoso-clathrâtis; albicante, zonis duabus purpureis angustis cingulatâ.

The thimble Mangelia. Shell fusiformly ovate, solid, very closely granosely latticed throughout; whitish, encircled with two narrow purple zones.


Hab. ?

The sculpture of this species is very similar to that of the M. solida, represented at Fig. 64.

Species 71. (Mus. Cuming.)

Mangelia nana. Mang. testâ ovata, spirâ brevi, turritâ, apice acutâ; anfractibus supernâ angulatis, longitudinaliter oblique costatis, interstîliis cavis, subtiliter striatis.

The dwarf Mangelia. Shell ovate, spire short, turreted, sharp at the apex; whorls angulated round the upper part, longitudinally obliquely ribbed, interstices hollow, finely striated.


Hab. Island of Mindanao, Philippines (found in sandy mud at the depth of twenty five fathoms); Cuming.

The spire is of a peculiar short dwarf-like character, though sharp at the apex.
MANGELIA.

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ERRATUM.
Species 14. For M. vittata—read M. obesa, stout.
MONOGRAPH

OF THE GENUS

PURPURA.

"Is not the sea
With various living creatures, and the air
Replenished, and all these at thy command?"—Milton.
Shell ovate, or oblong-ovate, generally nodulous or tuberculated, spire short, last whorl swollen, more or less inflated, aperture dilated, interior most frequently grooved; base emarginated; columella more or less depressly flattened; lip generally denticulated.

The terms Kipyx, Murex, and Parple, Purpura, were used indiscriminately by ancient Greek writers in reference to all mollusks yielding a purple juice, and they became objects of especial interest in that remote age, on account of the limited sources then known of obtaining colour. Who has not heard of the purple dye produced by the 'Tyris murex' of Ovid, (Murex trunculus Linn.)? which no doubt abounded on the shores of the ancient Phoenician city of Tyros.

The purple juice of the mollusk affords, however, no assistance to the systematist; it abounds alike in animals of very dissimilar character; in Scalaria and Ianthina, as well as in Murex and Purpura; hence the term Purpura was adopted by Lamarck to distinguish the genus under consideration, regardless of any property with which the animal might be endowed of secreting a purple juice. The most striking feature in the soft parts of Purpura is that of the head being a little flattened, and prolonged at each extremity into the tentacles, without any prominence in the centre; approximating in this respect to Bucinum. The testacles are pedunculated to generally two thirds of their extent, and at the summit of the pedunculated portion are the eyes. The operculum which the animal carries on the hind extremity of its disk, is invariably hary, and its closely to the aperture of the shell.

The shell of Purpura is mainly distinguished by an ovate dilated growth, emargined at the base, with a more or less flattened columella, the spire being sometimes extremely short, sometimes a little emarginated. There are three closely allied genera, Concholepas, Monoceros, and Ricinula, which the French authors propose to fuse into the present; I have not considered it prudent, however, to follow this course, as they afford good typical distinctions, whilst their amalgamation under the head of Purpura would only tend to confusion by involving a change of names.

The Purpura vary exceedingly in their detail of sculpture, but are somewhat constant in colour; the well-known P. lapillus of Europe varies, however, in both respects to an almost inconceivable degree; indeed, no one who has not thoroughly examined a numerous series of specimens can form an adequate idea of its Protean character.

Species 1. (Mus. Cuming.)

Purpura echinulata. Purp. testa ovata, subcentricosa, spirae brevi, transversae tenissimae striatæ et squamosa-tuberculatæ, tuberculis subchicanatis; columella latiuscula, concava; apertura ampla, dilatata, superne canaliculata, favea lateral, liris distatibus; later-albicente, colu molle et aperture fuce aurantium-tuscentibus, liris albidos.

The prickly Purpura. Shell ovate, rather ventricose, spire short, transversely very finely striated and squamosely tuberculated, tubercles somewhat prickly; columella rather broad, concave; aperture large, dilated, canaliculated at the upper part, interior ridged, ridges distant; yellowish white, columella and interior of the aperture orange yellow, ridges whitish.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 84.

Eadem, (lde Deshayes), Purpura manganillolodes De Blainville.

Hob. Philippine Islands, Cuming.

The aperture of this species is larger and more dilated than that of the P. manganilla.

Species 2. (Mus. Cuming.)

Purpura manganilla. Purp. testa ovata, ecrusissimula, spirae brevi, transversa tenissimæ striatæ et costatæ, costis distatusibus, angustis, comprassus-nodosis; apertura superne canaliculata, favea lineata, liris elevatibus, confluens; latius-albicente, nodis interdum ros-rosaceus, colu molle lutescente, aperture fuce auro-aurantiaria, liris satiatoriusbus.

The pimpled Purpura. Shell ovate, rather thick, spire short, transversely very finely striated and ribbed, ribs distant, narrow, compressly nodulated; aperture canaliculated at the upper part, interior lineated, lines elevated and close-set; yellowish white, nodules.
sometimes reddish-brown, columella yellowish, interior of the aperture reddish-orange, lines of a darker colour.


_Purpura gemmulata_, Cuming.

_Hab._ Philippine Islands; Cuming.

Distinguished by its lined aperture.

Species 3. (Mus. Cuming.)

_Purpura patula._ _Purp. testā abbreviato-ovatā, spirā conico-ovatā, asperāctibus transversīnīs semilunari intus sulcatis et striatis, superā conico-depressīs, tuberculātās granulādūs, erectīs, ad angulum minoriātās armātās; apertūrā parviscutulā, fānice labrum versus sulcātā; albidā-

fuscescente, nigrilineātā, columellā et aperture fānce aurantiō-rufās.

The Consul Purpura. Shell shortly ovate, spire conically acute, whorls transversely very finely grooved and striated, conically depressed round the upper part, armed at the angle with a row of large erect tubercles; aperture rather small, interior grooved towards the lip; whitish brown, crossed with black lines, columella and interior of the aperture orange-red.

_Lamarck_, Anim. sans vert. (Deshayes' edit.) vol. x. p. 63. _Murex Consul_, Chemnitz.  

_Hab._ Island of Corrigidor, Philippines (on the reefs); Cuming.

The difference between the _P. Consul_ and _gigantea_, which have been confounded together, is sufficiently apparent in Chemnitz's figures of them, cited by Lamarck, under the head of the former.

Species 5. (Mus. Cuming.)

_Purpura bimaculata._ _Purp. testā ovatā, crossā, solidā, spirā brevē, asperactibus semilunari intus sulcatis et striatis, tuberculārōrum serialis, unibus tribusce seriebus armātās; albidā, fuscescentel

taucula, columellā et aperture fānce niveās, tuberculātās peculiariter nigricente-fuscescentes.

The Double-spotted Purpura. Shell ovate, thick, solid, spire short, whorls depressed round the upper part finely grooved and striated, and armed with two or three rows of tubercles; white, stained with light brown, columella and interior of the aperture snowy white, tubercles blackish-brown within.

_Jonas._ (Hamburg), MSS.  

_Hab._ Zanzibar.

This species exhibits a curious black-spotted appearance from the tubercles being of a blackish brown colour within; they are covered by a superimposed layer of white, during the growth of the shell, but it becomes more or less worn off by friction or erosion.
Species 6. (Mus. Cuming.)

**Purpura Haustrum.** Purp. testa ovata, basi subtenuitata, spiris brevissimis; transversis irregulariter inciso-striatis; aperture perapala, columellam latam, obliqua planata, labro tenui, minuat duenticulato; extus cinereo-nigricante, columellam intusque coerulescente-alba.

The Scoop **Purpura.** Shell ovate, somewhat attenuated at the base, spire very short; transversely irregularly engraved with striae; aperture very large, columella broad, obliquely flattened, lip thin, finely denticulated; exterior ashy-black, columella and interior blueish white.

Quoy and Gaimard, Voy. de l' Astrolabe, Zoologic, v. ii. p. 554. pl. 37. f. 4 to S.

Buccinum haustrum, Martyn.
Buccinum haustorium, Chemnitz.
Buccinum haustorium, Gmelin.

_Hab._ New Zealand.

We are indebted to M. Quoy, the enterprising naturalist of the Astrolabe, for having rescued this species from the obscurity into which it had fallen in the hands of Lamarck. It was first described and admirably figured, during the last century, by our countryman Martyn in his 'Universal Conchology,' under the name of _Buccinum haustrum_, or 'Water Scoop Whelk, from New Zealand'; Chemnitz afterwards published an excellent figure and description of the species with the name of _Buccinum haustorium_, making a needless change in its specific appellation. Lamarck, who was evidently unacquainted with the _Purpura haustrum_, confounded it with the _Purpura persica_, quoting the foregoing names as synonyms of that species; a glance at the accompanying figures will, however, show that it is unnecessary to institute a comparison.

Species 7. (Mus. Cuming.)

**Purpura Bufo.** Purp. testa suborblindari-ovata, crassa, spiris brevissimis, plus minusve depressae, transversis inciso-striatis et tuberculis subdistantibus, unae prominulentae, unae ferre obsoletas, seriatim armata; columellam unicava, callositate insigni superne minuta, labro minuat denticulato, superne conspicu sinuato; extus nigricante-fusco lineata, columellam et aperture fave refenescens-luteis.

The Toad **Purpura.** Shell somewhat orbicularly ovate, thick, spire very short, more or less depressed, transversely deeply striated, and ornamented with rows of rather distant tuberces, which are sometimes prominent, sometimes almost obsolete; columella rather concave, furnished at the upper part with a remarkable callosity; lip minutely denticulated, conspicuously sinuated at the upper part; exterior lineated with blackish brown, columella and interior of the aperture reddish yellow.

_Lamarck, Anim. sans vert._ (Deshayes' edit.), v. x. p. 69.

Variety 2.

**Purpura callosa, Lamark.**

_Hab._ Island off Corrigidor, mouth of the Bay of Manila (on rocks at low water); Cuming.

M. Deshayes charges M. Kiener, in a note at page 70 of his edition of the 'Animaux sans vertebres,' of having confounded Lamarck's _Purpura callosa_ with his _P. bufo_; I cannot, however, agree with the learned editor on this subject. After a careful comparison of the shells with Lamarck's description, coupled with an examination of the figures of Petiver and Seba, I am forced to the conclusion that they are the same species in different states.

M. Kiener describes the _Purpura centignquadrata_, Duclos, as being the young of this species, whilst M. Deshayes, on the other hand, considers it distinct; not having as yet obtained access to the work in which M. Duclos' monograph occurs, I am unable at present to offer an opinion.

Species 8. (Mus. Cuming.)

**Purpura Persica.** Purp. testa ovata, basi leviter attenuata, spiris brevibus, transversis inciso-striatis, striis regularibus, liris intermediae subplaneatis, unfractibus parte superiore obsoletas biserratim nodulosa; columellam medio longitudinaliter excavata, aperture peramplata, labro simplici, subtubulato denticulato, superne latet sinuato; cinereo-fuscâ, conis albidos fusco-articuloatis angustis subdistantibus cingulati, columellâ rubido-luteâ, aperture fave refae-albicante, refere-lineata.

July, 1846.
THE PRINCELY PURPURA. Shell ovate, slightly attenuated at the base, spire short, transversely deeply striated, striae regular, intermediate ridges rather flattened, upper part of the whorls encircled with two rows of obsolete nodules; columella longitudinally excavated, aperture very large, lip simple, finely dentiuletulated, broadly sinuated at the upper part; ash brown, encircled with narrow distant white zones articulated with brown, columella reddish yellow, interior of the aperture pinkish white, ornamented with numerous radiating red lines.

LAMARCK, Anim. sans vert. (Deshayes edit.) v. x. p. 59.
Buccinum persicum, Linnaeus.
Hab. Island of Bohol, Philippines (on the reefs at low water); Cuming.
The narrow articulated brown and white zones which constitute so characteristic a feature in this well-known species, seem to have a tendency to become nodulous throughout; although nodules are only apparent in the two uppermost zones which encircle the spire.

Species 9. (Mus. Cuming.)

Purpura columellaris. Purp. testa suboblongo-ovata, crassa, spirā brevissimā, transversis costātis denticulātis, costis radicibus nodulosis; columella latā, leviter excavatā, medio obsoletā uniplicatā, labro denticulato et sulcatā, dentibus interioribus bisus; nigricante-fusca, columella et aperture margine rufescentibus, fuscus rufescente, interdum liratā.

THE COLUMELLAR PURPURA. Shell rather oblong-ovate, thick, spire rather short; transversely ribbed and ridged, ribs rudely noduled; columella broad, slightly excavated, with a single almost obsolete plait in the middle, lip denticulated and grooved, inner teeth in pairs; blackish brown, columella and edge of the aperture reddish, interior reddish-white, sometimes ridged.

LAMARCK, Anim. sans vert. (Deshayes' edit.) v. x. p. 62.
Hab. Gallapagos Islands (on exposed rocks at low water); Cuming.
Distinguished by its solid nodulous structure, and strongly grooved and denticulated lip.

Species 10. (Mus. Cuming.)

Purpura Rudolfi. Purp. testa suboblongo-ovata, basem versus attenuatam, spirā brevissimā; anfractibus superā subangulatis, transversim inciso-strictis, zonis obtusā nodiferis subdistantibus infra angulos circīlatis; columellarī longitudinales in saeculā, labro simplici, superrā sinuato, minutē denticulato; fusco-nigricante, maculis luteo-albicantibus irregulariter aspersā; columella rufescente, aperture fuscus albīdā, rufescente lineatā.

Rudolfi's PURPURA. Shell rather oblong-ovate, attenuated towards the base, spire rather short; whorls slightly angulated round the upper part, transversely deeply striated, encircled beneath the angle with rather distant obtusely nodulous zones; columella longitudinally grooved, lip simple, sinuated at the upper part, minutely denticulated; brownish black, irregularly grooved, with yellowish-white spots, columella reddish, interior of the aperture whitish, lineated with red.

LAMARCK, Anim. sans vert. (Deshayes edit.) v. x. p. 60.
Hab. Matanog, Province of Albay, Island of Luzon, Philippines (on exposed rocks at low water); Cuming.
The characters of this species present a sort of confus’d modification of those of the Purpura persica; the transverse zones are broader and most irregularly articulated, and the nodules are of a rude blunted growth.
Species 11. (Mus. Cuming.)

**Purpura Ascensionis.** Purp. testa globosa, crassá, per-solidá, spirá plano-depressá; laevigáta ant substantíl striatá; columnella latissiáma, plano-concava, tubéro minúté dentículato, superné canaliculato; estus transversí nimbí-subtilíssimá castaneo-striatá, intus eburnéa; columná eburnéa, maculá atrí tribus ant pluribus ant minoribus conspicué notatá.

The Ascension Purpura. Shell globose, thick, very solid, spire flatly depressed; smooth or finely striated; columnella very broad, flatly concave, lip minutely denticulated, channelled at the upper part; exterior transversely very finely striated with chestnut brown, interior ivory white, columnella ivory white, conspicuously with three, more or less, jet black spots.


Murex Myga (pars), Martini.

*Hab.* Island of Ascension, Atlantic (on rocks at low water).

I am not surprised that Martini should have represented this, and the following species, under one name; it may be more convenient to preserve the distinction assigned to them by M. Quoy, but, that they are extreme modifications of the same thing I have no doubt; I attach greater importance to the brown hair-like lines which characterize these species, than to the presence or absence of tubercles.

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Species 12. (Mus. Cuming.)

**Purpura Neritoidea.** Purp. testá suborbiculári, ventricosá, cuniculári, spirá brevisíssimá depressá; transversis striatá, tuberculis solitóbus prominentibus seriatim cincta; columná latá, concavo-planáti; albida, lineis subtilibus castaneis plus minusque pictá, apertura fúncus eburneá, maculá atrí tribus ant pluribus ant minoribus notatá.

The Nerite-like Purpura. Shell nearly orbicular, ventricose, rather thick, spire very short, depressed; transversely striated, encircled with rows of prominent solid tubercles; columnella broad, concavely flattened; white, more or less painted with fine chestnut lines, interior of the aperture ivory white, columnella ivory white, marked with three, more or less, jet black spots.

**Deshayes,** Anim. sans vert. v. x. p. 70. note

*Purpura Neritoidea,* Lamarck.

**Purpura Neritoidea.** Linnaeus (12th. ed. Syst. Nat.).

**Nerita nodosa,** Linnaeus (10th. edit. Syst. Nat.).

**Murex Myga,** (pars altera), Martini.

**Murex focus,** Gmelin.

*Purpura focus,* Sowerby, De Blainville.

*Hab.* Island of St. Vincent, Cape de Verds.

The confusion indicated by the above synonyms arises mainly from the circumstance of Linnaeus having referred, for the illustration of his *Murex Neritoidea,* to figures of the *Ricinula borrida,* as well as of the shell under consideration; M. Deshayes clearly shows, however, that Gmelin and his followers are in error, the character "columná planisectá" used by Linnaeus, being quite inapplicable to that species.

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Species 13. (Mus. Cuming.)

**Purpura hiatrix.** Purp. testá ovato-globosa, subventricosa, umbilicatá, spirá brevisíssimá, acuminatá; subtilis granulábus spiniformibus formicatis seriatim ornatá; columná lata, liris minutissimís, columná convexá, basis exilií truncátá, labrum intus dentículato; lateránte, columná et apertura fúncus roseá.

The Porcupine Purpura. Shell ovately globose, slightly ventricose, umbilicate, spire short, acuminate; ornamented with rows of large prominent spiniform vaulted scales, transversely finely ridged, ridges very minutely scaled; columnella convex, faintly wrinkled at the base, lip toothed within; yellowish, columnella and interior of the aperture rich pink.

**Lamarck,** Anim. sans vert. (Deshayes' edit.) v. x. p. 85.

*Murex hiatrix,* Linnaeus.

*Eadem Purpura spatulifera,* De Blainville (according to M. Kiener).

*Hab.* Island of Annaa, south Pacific Ocean (on the coral reefs at low water); Cuming.

This species is one of those intermediate states between *Purpura* and *Ricinula,* which have induced some of the continental naturalists to combine the two genera in one. Although it may be referred with equal propriety to either, I think it convenient to perpetuate the generic appellations of Lamarck; all limitations of genera became less defined, as the links which are wanting in the chain of affinity become revealed to observation; if this system of fusion were followed out, the nomenclature would be completely overturned.

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*July, 1846.*
Species 14. (Mus. Cuming.)

*Purpura planospira.* Purp. testá orbiculari-ovatá, spirá plano-depressá; transversim squanicostatá, costís subdistantibus, interstitiiis obtusor-liratis, columellá medio profunde excavatá, labri margine sulcato; extus pallidó rubido-fusçá, columellá altá, maculá oblongá nigrá medio notatá, infra rugis rufis conspicié tinctá, aperture fauce albicante, rufo-linealtá, lineis marginem versus saturatióris.

The flat-spire *Purpura.* Shell orbicularly ovate, spire flatly depressed; transversely scale-ribbed, ribs rather distant, interstices obtusely ridged, columella deeply excavated in the middle, edge of the lip grooved; exterior pale reddish-brown, columella white, marked in the centre with an oblong black spot, conspicuously stained beneath with red wrinkles, interior of the aperture whitish, lineated with red, lines deeper red towards the margin.

Lamarck, Anim. sans vert. (Deshayes edit.) v. x. p. 71.  
*Purpura lineata,* Enc. Mótth.  
*Hab.* James Island, Gallapagos (on exposed rocks); Cuming.

Several specimens of this remarkable shell were collected by Mr. Cuming at the island above noted; and he never met with it in the course of his researches at any other locality.

Species 15. (Mus. Cuming.)

*Purpura aperta.* Purp. testá orbiculari-ovatá, basen versus subattenuatá, transversim tuberculatá, tuberculis squameformibus, prominentibus, in seriéis subdistantibus, interstitiiis subtiliter liratis; columellá concavo-planatá, rugis perpanis brevis notatá, labro sulcato, interius tenuidenticulato; albicante, punctis castaneis obscure tinctá, columellá et apertura fauce albiis, columnae rugarum interstitiiis labrique sulcis pallis rubido-luteis.

The open *Purpura.* Shell orbicularly ovate, a little attenuated towards the base, transversely tuberculated, tubercles, scale-like, prominent, in rather distant rows, the interstices between which are finely ridged; columella concavely flattened, marked with a very few short wrinkles, lip grooved, finely denticulated within; whitish, interstices between the wrinkles of the columella, and grooves of the lip, palely stained with reddish yellow.

*Purpura macrostoma* (?), Conrad.  
*Hab.* San Carlos, Central America.

A very characteristic and well-defined species, which does not appear to have been known to Lamarck. The shell described and figured by M. Kiener as a variety, is merely the same thing in a bad state of preservation.
Species 16. (Fig. a and b Mus. Cuming.)

**Purpura buccinea.** Purp. testá subglobosa-siniformis, longitudinaliter obsolete costată, costis latissimis, transversa sinuque rotata, costis angustius, costis illius secundariis, transversanter, majoribus, columna obsita uniplicatá, aperture fuscá unilaterally radiata lirata fuscá; fuscá, lirius majoribus fuso saturato alboque unilaterális, aperture fusco-roseo-albidá.

The buccinoid Purpura. Shell somewhat oblong, fusiform, longitudinally obsolete ribbed, ribs broad, transversely ridged throughout, ridges narrow, acute, here and there, nearly equidistantly, larger, columnella obtusely one-plaited, interior of the aperture finely radiately ridged; brown, larger ridges neatly articulated with white and darker brown, aperture brownish white.

**Deshayes,** Anim. sans vert. vol. x. p. 92.

**Purpura striata,** Quoy and Gaimard.

**Hub.** New Guinea.

An aberrant species of the genus, but possessing an abundance of character. The columnella has a strong obtuse plait upon it, and the shell is encircled round the upper part by three narrow articulated fillets.

Species 17. (Mus. Cuming.)

**Purpura gigantea.** Purp. testá subquadrate-ovata, spirá peculiariter accinmatá, transversis irregulariter subtus-convexa, onfractibus superficéis unihelicis, transversau tuberculatá, tuberculis peculiariter rotundatif et obsius, aperture peramplá, marginem intus inosco-sulcata; obtusus termination, sulcis saturatoribus, columnella et aperture fuisse auranti-aufs.

The gigantic Purpura. Shell somewhat squarely ovate, spire peculiarly acuminate, transversely irregularly very finely grooved, whorls encircled round the upper part with one or two rows of blunt peculiarly rounded tubercles, aperture very large, edge sharply grooved within; pale olive brown, grooves of a dark tinge, columnella and interior of the aperture orange-red.

**Buccinum harmonomastoma,** Chemnitz (not of Linnaeus), vol. xi. pl. 157. f. 1796-7.

**Purpura consul,** Kiener (not of Lamarck).

**Hub.**

It will be seen by the above arrangement of synonyms, that this magnificent species is neither the *Buccinum harmonomastoma* of Linnaeus, as supposed by Chemnitz, nor the *Purpura consul* of Lamarck, as propounded by Kiener; the former (Pl. V. Fig. 21.) is an oval shell, encircled throughout with rows of blunt tubercles, and fine dark flattened strics, the spire being only moderately elevated; the latter (Pl. I. Fig. 4.) is a broad abbreviated shell, with a strong radiating series of prominent tubercles, and a curiously acuminated conical spire. The shell under consideration, differs from both these in being of a more oblong-square form, with a peculiarly elevated acuminated spire, the tubercles though prominent, are of a rounded piriform-like character, and one of the most characteristic features of the species, consists in the surface being encircled throughout with finely engraved grooves, which are the most prominently developed on the summit of the tubercles.

Species 18. (Mus. Cuming.)

**Purpura deltoidea.** Purp. testá oblongo-ovata, crassá, ponderosa, transversis impresso-stricatu, tuberculis solidis subdistantibus coronatá; columna-nigrimentis, basi albo-ruber, tuberculis albo-ruber, columnella pullis purpureis.

The deltoid Purpura. Shell shorty ovate, thick, ponderous, transversely impressly striated, coronated with solid, rather distant, tubercles; dark chestnut black, base white, tubercles marked with a white zone, columnella faintly stained with purple.

**Lamarck,** Anim. sans vert. vol. x. p. 85.

**Hub.** Jamaica; Dr. Adams.

Distinguished from the following species with which we are more familiar, by its spiral ridge of tubercles.

Species 19. (Mus. Cuming.)

**Purpura melones.** Purp. testá oblongo-ovata, crassá, ponderosa, spirá breccinato, transverso-impresso-stricatá, mutica; columna-nigrimentis, albo variis, columnellá intecta, purpureo-luteá, aperture intecta.

The melon Purpura. Shell shortly ovate, thick, ponderous, spire very short, transversely impressly striated, smooth; dark chestnut-black, variegated with white, columnella yellowish, stained with purple, aperture yellowish.

**Duclos,** Annales Sci. Nat. 1832. Pl. 1. fig. 2.

**Purpura crassa,** De Blainville.

**Hub.** Monte Christi, West Columbia (under stones at low water); Cuming.

One of the few species of the genus which are desti-
tute of tubercles.

August, 1845.
Purpura Inermis. Purp. testâ rotundato-ovata, ventricosa, spirâ acuta, transversis改革创新之及线可透透白，lirîs striis longitudinalibus decussatis, apertura sub-amplâ, labro tenunculo, intus inciso-sulcata; cinereo-olivaceâ, lîrîs maculis olivab hic illic sparsis ornâtis, columellâ et apertura făuce rugensi-aurantiâs.

The unarmed Purpura. Shell rotundately ovate, ventricose, spire sharp, transversely very closely and finely ridged, ridges decussated with longitudinal striae, aperture rather large, lip rather thin, sharply grooved within; ashy olive, ridges sparingly ornamented here and there with white spots, columella and interior of the aperture reddish orange.


Hab. — ?

This is probably one of those species which M. Kiener has confounded together, under the title of Purpura cata-
recta, neither of which have the slightest reference to the Buccinum cataracta of Chemnitz. I cannot identify it with any species hitherto recorded, and am unable to say whether it is ever tuberculated; there is no indication of tubercles in the specimen before me, and it has a very peculiar style of colouring, the ridges being marked here and there in a very irregular manner, with oblong white spots.

Species 20. (Mus. Cuming.)

Purpura hemastoma. Purp. testâ ovata, spirâ conicâ, anfractibus superâ concaveâ, transversis planis struck hers, tuberculis rotundatis ob-
tuis, basea versus obsoletioribus, columellâ levigatâ, apertura oblongâ, superâ subconspicuâ sinuâtâ, labro intus inciso-sulcâto; olivaceo-fusco, striis nigrican-
tibus, columellâ et apertura fuxce viridâ auranti-fusco.

The red-mouth Purpura. Shell ovate, spire conical, whorls concave round the upper part, transversely flatly ridged and encircled with four rows of tubercles, which are blunt, rounded, and more obsolete as they approach the base, columella smooth, aperture oblong, rather conically sinuated at the upper part, lip sharply grooved within; olive-brown, stripe blackish, columella and interior of the aperture bright orange-red.

August, 1846.


Eadem? Purpura cornuta, Menke.

Hab. Mediterranean.

I am inclined to think with M. Deshayes, that this species is confined to the Mediterranean and Atlantic shores of Europe, concluding that where a more southern locality is quoted, as in the ' Iconographie des Coquilles vivantes,' the author has, probably, had some allied species before him, (such as the P. ochrostoma, for example) the specific pecu-
liarities of which he has failed to discriminate.

Species 22. (Mus. Cuming.)

Purpura chocolatum. Purp. testâ subabreviato-ovata, tur-
gidâ, anfractibus superâ concave-depressis, uni-
que crenatis et subdistantiis inciso-striatâs, tuberculis grandibus, subdistantibus, ad angulum aranatis, cola-
mellâ concaveâ, labro tenunculo, intus inciso-sulcâto; extus chocolate-fused, columellâ auranti-rajà, labro intus chocolate-fusco.

The chocolate-brown Purpura. Shell somewhat shortly ovate, swollen, whors concavely depressed at the upper part, very closely and finely deeply striated throughout, armed with large rather distant tubercles at the angle, columella concave, lip thin, sharply grooved within; exterior dark chocolate brown, columella orange-red, lip chocolate brown within.


Hab. Bay of Callao, Peru (found in sandy mud at the depth of six fathoms); Cuming.

An extremely characteristic species, and so distinct from any other yet described that it is impossible to find any difficulty in recognizing it.

Species 23. (Mus. Cuming.)

Purpura succincta. Purp. testâ ovata, spirâ plus mi-
nusce elevata, anfractibus sic plus minusce intrinis, transversis avidique costâtâ, costis prominentibus, ru-
gosis, obsoléti squamae, interstitialis profunde excavae, strates, costâ minore raro intercaniculâ; sordidâ lutes-
tente-alba.

The encircled Purpura. Shell ovate, spire more or less elevated, whors accordingly more or less thrust
inwards, transversely ribbed throughout, ribs prominent, rugose, obsolete squamate, interstices deeply excavated, striated, with rarely a small intervening rib; dull yellowish white.

*Buccinum succinctum*, Martyn, Univ. Conch. vol. 2. pl. 45.

*Buccinum orbita*, Chemnitz.

*Buccinum lacuus*, Bruguière.

*Buccinum bicostatum*, Bruguière.

Variety β.

*Testa poren, elongatior, costarum interstitiis laminis tenuibus peculiari decussatis.*

Shell small, more elongated, with the interstices between the ribs peculiarly crossed with thin lamínæ.

*Buccinum striatum*, Martyn.

*Purpura rugosa*, Lamarck.

*Purpura striata*, Deshayes.

Hab. Cape of Good Hope.

The *Purpura rugosa*, Lamarck, of which M. Kiener has omitted mention, is, I think, without doubt, a modified state of the *P. succincta*, the extremes of which are beautifully represented by Martyn, in the ‘Universal Conchology.’

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Species 24. (Mus. Cuming.)

*Purpura xanthostoma.* *Purp. testá pyriformi-ovatá, ven-

*Laur. Cuming.*

**Hab.** Valparaiso (dredged from gravel and sand at various depths, from seven to twenty-five fathoms); Cuming.

This is a most variable species both in form and sculpture, and might be referred in its different states, with the same propriety, either to the genera *Pyroha* or *Fusus*. However unlikely it may appear, an affinity may certainly be traced to the *Fusus squamulosus* of Philippi, inhabiting the Mediterranean, the *Purpura xanthostoma* in a young and highly sculptured condition, being of exactly similar form, and almost as thickly beset with imbricating scales.
Species 25. (Mus. Cuming.)

**PURPURA.**

**Plate VI.**

Species 25. **(Mus. Cuming.)**

**Purpura coronata.** *Purp. testa subglobosa, ventricosa, basi umbilicata, anfractibus triseriatura nodosis, superna squamis callosis gibbosis ascendentibus coronatis; albi- cante, lineis transversis fascis conspicue pictis; columnella ext apertura fave roseo-luteis.*

**The coronated Purpura.** Shell somewhat globose, ventricose, umbilicated at the base, whors encircled with three rows of nodules, coronated round the upper part with callous swollen ascending scales; whitish, conspicuously painted with transverse brown lines, columnella and interior of the aperture reddish orange.

**Lamarck, Anim. sans vert. (Deshayes’ edit.) vol. x. p. 72.**

Eadem. **Purpura callifera, Lamarck.**

**Purpura Guineensis, Schubert and Wagner.**

Hab. — 2.

The main feature of distinction in this species, consists in the curious vaulted scales which are formed over the suture. Frequently they are increased by a callous deposit of semi-transparent matter, having almost the appearance of wax; which state is the *Purpura callifera* of Lamarck.

Species 26. **(Mus. Cuming.)**

**Purpura carinifera.** *Purp. testa, spiræ acuminato-burriti, anfractibus transversis carinatis et striatis, media angulata-tumidis et tuberculatis, apertura superna sinuata; cisereo-fuscescente, carinis striisque, columnella et apertura fave roseo-auro-aurantiis.*

**The keeled Purpura.** Shell ovate, spire acuminately turreted, whors transversely keeled and striated, angularly swollen and tuberculated in the middle, aperture sinuate at the upper part; ashy brown, keels, strie, columnella and interior of the aperture reddish orange.

**Lamarck, Anim. sans vert. (Deshayes’ edit.) vol. x. p. 73.**

Hab. — 2.

It is the distinguishing feature of this species to have two keels of a more prominent character than the rest, on the middle and upper half of the whors, each of which, particularly the lower, is more or less tuberculated.

Species 27. **(Mus. Cuming.)**

**Purpura armigera.** *Purp. testa ovata, spiræ conico-acuminata, anfractibus supernâ depressissculinis, tuberculorum seriisbus tribus at pluribus cingulatis, tuberculis grandibus, crassis, obsitus, valde prominentibus, columnellâ et apertura fave roseo-luteis.*

**The armed Purpura.** Shell ovate, spire conically acuminated, whors rather depressed round the upper part, encircled with three or more rows of tubercles, tubercles large, thick, obvate, very prominent, columnella slightly wrinkled; white, encircled with yellowish-brown bands between the rows of tubercles, columnella and interior of the aperture pinkish-yellow.

**Lamarck, Anim. sans vert. (Deshayes’ edit.) vol. x. p. 64.**

**Buccinum armigerum, Chemnitz.**

Hab. — 2.

A well-known species, distinguished by its stout prominent tubercles and elevated conical spire; the banded painting is also peculiar.

Species 28. **(Mus. Cuming.)**

**Purpura bicostalis.** *Purp. testa ovata, spiræ subacuminata, anfractibus transversis undique impresso-striatis, supernâ depressissculinis, costis duabus subobsoletis, plus minusve tuberculiferis, cingulatis, columnellâ obliquo-plicato-rugosa, labro interni fortiter inciso-acute; fuscescente, strigis flexosis cinereo-oleaceis longitudinâ-liter nebulatis, arcis inter striis conicimm fusco articulatis, columnellâ et apertura fave auranti-o-rosa.*

**The two-ribbed Purpura.** Shell ovate, spire a little acuminated, whors transversely impressly striated throughout, rather depressed at the upper part, encircled with two obsolete ribs, which are more or less tuberculiferous, columnella obliquely plicately wrinkled, lip strongly sharply grooved within; light brown, clouded longitudinally with ashy olive streaks, spaces between the strie prettily articulated with brown, columnella and interior of the aperture orange-red.

**Lamarck, Anim. sans vert. (Deshayes’ edit.) vol. x. p. 82.**

Hab. St. Elena, West Columbia (found on the rocks at low water); Cuming.

This species, which is probably often confounded with the *P. hermastoena*, may be distinguished in great measure by its neat articulated painting.

August, 1846.
Purpura lineata. Purp. testá ovata, ventricosa, spirá brevissimá, acuta; anfractibus transversis undique striatis, superne acutis angulatis, ad angulum pli- cato-nodosis, nodis subcompresso, infra funicularis obsoletâ nodiferis, subirregulariter distantibus, cingulatis; aperture amplá, favea subangulata, labro tenui; lateo- albicante; funiculis castaneis, columnæ labiæ mar- gine internum aurantioc-rufis.

The lineated Purpura. Shell ovate, thin, ventricose, spire rather short, acute; whorls transversely striated throughout, sharply angulated, plicately nodulated at the angle, nodules rather compressed, encircled beneath with rather irregularly distant cords, which are obliquely nodiferous; aperture large, interior finely ridged, lip thin; yellowish white, cords echinatus brown, columnæ and inner side of the lip orange-red.

Kiener, Icon. coq. viv. p. 115. pl. 33. f. 80.

Buccinum lineatum, Lamarck.

Hab. — — ?

This remarkable shell which is admirably figured in the 'Encyclopédie Méthodique' Pl. 400 f. 6, a, b. was included by Lamarck in the genus Buccinum; M. Kiener has, however, very properly removed it to Purpura.

Species 30. (Mus. Cuming.)

Purpura imperialis. Purp. testá ovata, basi ampliter umbilicata, spirá acutâ turrita; anfractibus transversis undique striatis, superne angulatis, spinis squamiformibus prominentibus subcarinâ carinatis, spinis apicibus versus obsoletis; lateo-albicante, aperture plana carunculifer-fusco subindicatâ fuscâtâ.

The imperial Purpura. Shell ovate, largely umbilicated at the base, spire sharply turrit, whorls transversely striated throughout, angulated at the upper part, conspicuously encircled with two rows of prominent scale-like spines a little recurved, spines oblique towards the apex; yellowish white, interior of the aperture somewhat indistinctly banded with blue-brown.


Hab. — — ?

How M. Kiener can possibly discover any specific rela-

tion between the shells which he has figured as varieties under the above title, I cannot imagine. The P. imperialis, which he correctly figures at Fig. 39. is allied rather to the P. carinifera, the keels of that species being developed in this into a diadem of recurved spines; the shell represented at Fig. 39. a, is of a different form, and exhibits quite another design of sculpture.

Species 31. (Mus. Cuming.)

Purpura kiosquiiformis. Purp. testá fusiformi-ovata, subsquareformis, transversis undule-straits, anfractibus medio unius vel biseriatis carinatis et tuberculatis, spire subtunnel praefundis, columnâ crispatâ erectis concentricâ deceptatis, labro superne sinuato; oliveo-equirili, albo vel carunculoso ovato, aperture plana internum aurantioc-rufis.

The kioski-shaped Purpura. Shell fusiformy ovate, somewhat scalariform, transversely elevated striated throughout, whorls encircled round the middle with one or two keels and rows of tubercles, sutures of the spire deep, concentrically crossed with erect crisp spines; olive-green, zoned with white or pale blue, interior of the aperture sometimes banded with black-brown.

Duclos, Annales Nat. vol. xxvi. pl. 1. f. 5.

Hab. Bay of Panama (on rocky places at low water); Cuming.

The locality of New Holland cited by M. Kiener for this species, is, I think, a very doubtful one; it was collected by Mr. Cuming at the Bay of Panama.

Species 32. (Mus. Cuming.)

Purpura D'Orbignyi. Purp. testá fusiformi-ovata, basi umbilicata, anfractibus transversis liratis, liris prominentibus subdistantibus, superne convexe angulatis, ad angulum biseriati tuberculis, tuberculis compressis, superioribus prominentioribus; albo, ferrugineo-fusco, apicibus versus saturatores, plus minuscæ tinctae, epider- midae crassâ fibrosâ indutâ, aperture alba.

D'Orbigny's Purpura. Shell fusiformy ovate, umbilicated at the base, whorls transversely ridged, ridges prominent, rather distant, convexly angulated at the upper part, encircled at the angle with two rows of compressed tubercles, of which the upper are the
more prominent; white, more or less stained with rusty brown which is darker towards the apex, and covered with a thick fibrous epidermis, aperture white.

Fusus Purpuroides, D'Orbigny, Voyage dans l'Amérique Méridionale, Pl. 63. Fig. 1.

Hab. St. Elena, West Columbia (in the crevices of rocks at low water); Cuming.

I include this species under the head of Purpura, in consequence of its unquestionable generic affinity with the P. kiousquiformis, and dedicate it to the illustrious traveller and naturalist, the adoption of whose specific name would involve an inconsistent tautology.

Species 33. (Mus. Cuming.)

Purpura echinata. Purp. testa ovata, basi umbilicata, anfractibus transversis undique elevato-striatis, striis subtilissimè squamatis, supernè subangulatis, infra angulum quadrilaterum tuberculatis, tuberculis parvis, nodiformis; extus pallide rubiginoso-fuscis, intus albas.

The prickly Purpura. Shell ovate, umbilicated at the base, whorls transversely elevately striated throughout, striae very finely scaled, slightly angulated at the upper part, encircled beneath the angle with four rows of small nodule-like tubercles; exterior pale rusty brown, interior white.


Hab. ?

A very characteristic and well-defined species, quite distinct from the P. echinulata of Lamarck, of which M. Deshayes appears to have omitted mention.
Species 34. (Fig. a, b, and c, Mus. Cuming.)

**PURPURA HIPPOCASTANUM.** *Mus. testa ovata spirá breviscindat, interdum subelevarat, anfractibus superne laticer angulatís, seriatim tuberculatís, tuberculís fortibus, unum obtúsus, unum prominentíssimos, interóre impresós-striátis, tubro intus nodáloso; extus albidá, nigerríssimo plus minus tinctá vel articularát, columnellá et aperture fane purpurae-fusco radiátis.

**The Horse-chesnut Purpura.** Shell ovate, spire rather short, sometimes a little elevated, whorls slightly angulated round the upper part, encircled with rows of tubercles, tubercles strong, sometimes obtuse, sometimes prominent, the interspaces being impressly striated, lip noded within; exterior whithis, more or less stained and articulated with jet black, columnella and interior of the aperture radiated with purple-brown.

*Murex hippocastanum,* Linnaeus.

*Hob.* Eastern Seas, South Seas, Zanzibar, &c.

I cannot agree with the principle advanced by my esteemed friend, M. Deshayes, in his observations on the *Purpura hippocastanum,* to the effect that any species of Linnaeus origin should be abandoned that cannot be satisfactorily identified. The author of the 'Systema Nature' had but a meagre range of antiquated figures to refer to for the illustration of his species, and he lived in a time when not only comparatively few shells had been discovered, but when the greater portion were collected dead upon the shore, and in very imperfect condition. The case before us is merely one of those instances in which Linnaeus, from the miscellaneous character of his materials, included several species under one specific head. It was his misfortune, in the present case, to refer to figures which have proved to be the representatives of different species, one of which in Rumphius 'Thesaurus Imagíním' Pl. 24. Fig. C. a Purpura hystrix, is an error which appears to have escaped even the penetration of Lamarck. The reference made by Linnaeus to Gualter's great figure of the *Pyrula galeodes* (Pl. 31. Fig. F.) is probably a typographical error, for a figure resembling the shell under consideration, occurs at Pl. 43. Fig. V. of the same work, as corrected by Lamarck; it is a serious reflection on the genius and discrimination of the learned Professor of Upsal to imply that he could have simultaneously regarded the figures above cited in Rumphius and Gualter as the representatives of one and the same species. I think it is tolerably apparent from the references of Linnaeus, that he included the *Purpura hippocastanum,* *bistubercularis,* and *pice* under one specific head (*Murex hippocastanum*), and confounded them with a dorsal figure of the *P. hystrix*; of these names the first has been assigned by Lamarck to the shell under review, and, although some confusion has arisen amongst naturalists, through one taking one type, and another selecting another, it is manifest that to abandon all on the principle advanced by M. Deshayes, would only lead to confusion worse confounded.

The *P. hippocastanum* is, perhaps, the most readily distinguished by a peculiarity in the arrangement of the colouring matter, which is for the most part articulated in small tessellated squares ranging between the engraved stripe; there is, however, a dark variety represented at Fig. 34. a, in which the articulation is lost in the overwhelming deposit of black colouring, in broad close concentric stripes.

Species 35. (Mus. Meteallé.)

**PURPURA LUTEOSTOMA.** *Purp. testa oblongo-ovata, transversa undique striátá, anfractibus superne angulatis, infra seriatim tuberculatis, tuberculís obtúsus, interóre fere absolutís; luteo-fusco-áureo, cincro-nigriente longitudinaliter undátius pictá, columnellá et aperture fane rufo-áureostríata.

**The Yellow-mouth Purpura.** Shell oblong-ovate, transversely striated throughout, whorls angulated at the upper part, encircled with rows of tubercles beneath, which are obtuse, and sometimes nearly obsolete; yellowish brown, painted with longitudinal waves of ashy black, columnella and interior of the aperture reddish orange.

Deshayes, Anim. sans vert. vol. x. p. 98.


*Hob.*

An interesting species, distinguished by its elevated spire and blueish tinge of colour.

Species 36. (Mus. Cuming.)

**PURPURA FICA.** *Purp. testa ovata, creassiascent, subcentricá, anfractibus superne angulatís, infra biserratiun tuberéculatís, tubéculis solidís, prominentibus, subdistantíbus, aperture fane striátá; nigro alboque con-

August, 1846.
spicata variegata, colurnellat intescente, rufo-fusco tincta, aperturata intescenta, margine nigro tessellata.

The Magpie Purpura. Shell ovate, rather thick, somewhat ventricose, whorls angulated at the upper part, encircled beneath with two rows of rather distant prominent tubercles, interior of the aperture striated with reddish brown, aperture yellowish, tessellated with black at the margine.

De Blainville; Kiener, Icon. Coq. viv. p. 48. pl. 11. fig. 31.

Hab. Island of Luzon, Philippines (under stones at low water); Cuming.

The comparison of affinities which M. Kiener draws between this species and the P. aruwigera, is quite uncalled for, the two species being far removed from each other; it approaches rather to the P. bitubercularis, but may be distinguished by its broader and more ventricose shape, and by the more solid and obtuse growth of the tubercles, the aperture also differing in being striated.

Species 37. (Mus. Cuming.)

Purpura bitubercularis. Purp. testa oblongo-ovala, transversa impresso-striata, angustatis supernae sub-augulatis, infra biserialia tuberculata, tuberellis acuminatis, muricatis, labro intus denticulato; extus cinereo-argentea, et luteo-albido conspicue variegata, aperturâ rufescens-assemblata.

The double-tubercled Purpura. Shell oblong-ovate, transversely impressly striated, whorls slightly angulated at the upper part, encircled beneath with two rows of acuminated prickly tubercles, denticulated within; exterior conspicuously variegated with ashy black and yellowish-white, aperture reddish-orange.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 64. Purpura Kienerii, Deshayes.

Hab. Philippine Islands; Cuming.

I consider M. Kiener perfectly correct in his illustration of this species, and that his figure is in every respect identical with that of Seba.

Species 38. (Mus. Cuming.)

Purpura intermedia. Purp. testa oblongo-ovala, spirâ brevi, subacuminata, anfractibus supernis leviter depressis, transversis impresso-striatis, seriatùm obsolete tuberculatis, aperturâ subamplâ, labro plano-incrassato, intus noduloso; nigerrima, arcis inter tuberellus albimo-maculatis, colurnellis labrique marginé purpureo-fusco tinctis.

The intermediate Purpura. Shell oblong-ovate, spire short, a little acuminate, whorls slightly depressed at the upper part, transversely impressly striated, encircled with rows of obsolete tubercles, aperture rather large, lip flatly thickened, nodulous within; very black, spaces between the tubercles blotched with white, columella and edge of the lip stained with purple-brown.


Hab. —— ?

An interesting well-defined species, quite distinct from either of those between which M. Kiener has considered it intermediate.
Purpura

Plate IX.

Species 39. (Mus. Cuming.)


The little crown Purpura. Shell ovate, somewhat thickened, spire rather short, angularly acuminated, conevally angulated round the upper part, tuber- cularly coronated at the angle; ash grey, columella whitish, interior of the aperture yellowish.


Hab. Island of Vanikoro; Quoy.

Approaching very closely to the P. imperialis, but constantly distinguishable by its more solid growth and stouter and ruder form.

Species 40. (Mus. Cuming.)

Purpura cataracta. Purp. testá oblongo-ovátá, Bucesiniformi, sub incidente suhbovoletá sulcátá, striis longitudinalibus obliquè decussantibus; columellá planodepressá, aperture inflatá; griso-albicante, striis nigricantibus, irregulariter undulátis, longitudinaliter pectá, columnellá et aperture foce purpurea-fuscís.

The cataract Purpura. Shell oblong-ovate, Buccinum-shaped, rough, transversely obsoletely grooved, with longitudinal stria crossing obliquely; columella flatly depressed, aperture inflated; greyish-white, painted longitudinally with irregularly undulating black streaks, columella and interior of the aperture purple-brown.

Buccinum cataracta, Chemnitz, Conch. Cab. vol. x. p. 188. pl. 152. f. 1455.

Hab. ——?

No author appears to have yet succeeded in identifying the mysterious Buccinum cataracta of Chemnitz; it is easy to frame a description referring to it, as did Lamarck, or to criticise the illustrations of others, as M. Deshayes has very properly done, but the test of an author's researches is to produce the shell. M. Kiener in attempting this, has unfortunately added to the confusion; in his monograph of Purpura, he has figured at least two, if not three, species for P. cataracta and varieties, not one of which exhibits the slightest approach to Chemnitz's figure, and all presenting the ordinary character of a grooved aperture, the absence of which in the Buccinum cataracta is one of its distinguishing features. Again, on referring to M. Kiener's monograph of Buccinum, it will be found that he has figured another totally different shell under the name of B. Delalanae, referring, for the sake of illustration, to Chemnitz's figure of B. cataracta. If M. Kiener regarded that shell as the species now under investigation, why not have adopted Chemnitz's name, instead of complimenting M. Delande in opposition to the ordinary rules of nomenclature? We are all liable to error, and to avoid it is impossible, but the necessity for such a reiteration of critical correction as the labours of this author invoke, becomes irksome.

The specimen here described and figured for the P. cataracta does not accord so intimately with Chemnitz's figure as could be wished, but I believe it to be the shell intended, and leave others to form their own opinion of the accuracy of my views. It is a rough shell, obscurely grooved and striated, conspicuously and most irregularly undulated with black upon a white ground, the columella and interior of the aperture being perfectly smooth, and of a chocolate or purple-brown colour.

Species 41. (Mus. Cuming.)

Purpura Blainvillii. Purp. testá ovátá, spirá subacuminatá, anfractúibus transversum nodoso-costástis, intersstis subtiliter lirátis; columellá subangulatá, labro intus sulcato, margine denticulato; aperture subialátá; fusó, columellá alba, ferrugineo-refó margiñáta.

De Blainville's Purpura. Shell ovate, spire a little acuminated, whorls transversely nodously ribbed, interstices finely ridged; columella rather narrow, lip grooved within, denticulated at the margin; aperture a little indented; brown, columnella white, edged with ferrugineous red.

Deshayes, Anim. sans vert. vol. x. p. 93.

Purpura Callaoensis, De Blainville, Kiener, (not of Gray).

Hab. Bay of Callao, Peru.

A light, rather delicately formed shell, in which the columella is edged with dark red.

September, 1846.
Species 42. (Mus. Cuming.)

Purpura elegrota. Purp. testâ oblongo-ovatâ, transversis nodoso-costatâ et lirate, columellâ depressâ, aperture fawce fortiter sulcatâ; cernuico-griseâ, conis inessis angustis indistinctâ et irregulariter cingulatâ, nudulis nigricantibus longitudinaliter subindistinctâ pictâ, columellât et aperture fauce auranto-luteis.

The sickly Purpura. Shell oblong-ovate, transversely nodosely ribbed and ridged, columella depressed, interior of the aperture conspicuously grooved; dingy cream colour, ridges tinged with light brown, lip saffron-red within.


A very characteristic species, from New Holland, of which several specimens have been recently collected by Mr. Jukes, during the surveying expedition of H. M. S. 'The Fly.' It approaches nearest to P. homoastoma, but is of a different style of sculpture, and always characterized by a paild tide of colouring.

Species 43. (Mus. Cuming.)

Purpura undata. Purp. testâ oblongo-ovatâ, utrique subattenuatâ; spirâ angulato-acuminatâ; anfractibus transversis subtiliter granoso-lirate, superno depressis, transversis costatis, costis peculiariter compresso-tuberculatis; albo et cinereo-fusco longitudinaliter undulatis pictâ, costis hie illie lutescentibus, columellât et aperture fauce luteis.

The waved Purpura. Shell oblong-ovate, a little attenuated at each end, spire angularly acuminated; whorls transversely ribbed, ribs peculiarly compressly tubercled; painted longitudinally with waved ash-brown and white, ribs here and there yellowish, columella and interior of the aperture yellow.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 67. Hab. Monte Christi, West Columbia (under stones at low water); Cuming.

Another example in which M. Kiener has figured different species as varieties; easily determined, however, by its waved painting, and the compressed character of the tubercles.

Species 44. (Mus. Cuming.)

Purpura floridana. Purp. testâ oblongo-ovatâ, utriquo conspicuâ attenuatâ, spirâ acutâ; anfractibus superiâ depressis et subtiliter nodosis, transversis nodique creberrimâ lirate et sulcatâ; aperture fauce fortiter sulcatâ; cernuico-griseâ, conis inessis angustis indistinctâ et irregulariter cingulatâ, nudulis nigricantibus longitudinaliter subindistinctâ pictâ, columellât et aperture fauce auranto-luteis.

The Florida Purpura. Shell oblong-ovate, conspicuously attenuated at both ends, spire sharp; whorls depressed and finely noduled round the upper part, transversely very closely ridged and grooved throughout, interior of the aperture strongly grooved; bluish-grey, indistinctly and irregularly encircled with narrow yellow zones, and rather indistinctly painted with blackish longitudinal waves, columella and interior of the aperture orange-yellow.


Hub. Florida.

A shell of elongated growth with a row of fine nodules round the upper portion of the whorls; of a bluish grey colour, waved longitudinally with black streaks.

Species 45. (Mus. Cuming.)

Purpura fasciata. Purp. testâ oblongo-ovatâ, spirâ acuminatâ, exsertâ, transversis subtiliter lirate et sulcatâ, labro minute dentatulo; cernuico-albicante, fascis tribus angustis lutescentibus cingulatâ, interstitiis nigricantibus longitudinaliter undulatis, aperture fauce albicante, prope marginem purpureo-radiatâ.

The banded Purpura. Shell oblong-ovate, spire acuminated, exserted, transversely finely ridged and grooved; aperture rather short, a little inflated, interior grooved, lip minutely denticulated; bluish-white, encircled with three narrow yellowish bands, interior of the aperture whitish, rayed near the edge with purple.

Hub. —?

There is a marked peculiarity of form as well of colouring in this shell; the spire is acuminated whilst the aperture is short and almost rounded; the three equidistant yellow bands which encircle the last whorl are characteristic, and so also is the purplish-white tinge of the aperture, in which there is no indication of yellow or orange-red.
PURPURA.

Species 46. (Mus. Cuming.)

**PURPURA EMARGINATA.** Purp. testa ovata, crassâ, spirâ brevi, anfractibus obliquè plicatis et corrugatis, transversâ costatis, costis rugosis, compressis, acutè nodosis; columellâ excavâ, ampliter dilatata; rubido-fuscâ, aperture fuscâ, columellâ labroque albicantibus.

The emarginate Purpura. Shell ovate, thick, spire short, whorls obliquely pleated and wrinkled, transversely ribbed, ribs rugose, compressed, sharply noduled; columella excavated, largely dilated; reddish-brown, interior of the aperture brown, lip and columella whitish.


**PURPURA CONRADII, Nuttall.**

Hab. California? New Zealand?

There is a considerable degree of uncertainty attending his species, which I am not able to clear up. M. Deshayes described and figured a shell in the Magasin de Zoologie, under the name of *P. emarginata*, in an immature state, emarginated at the lip, said to be brought from New Zealand by M. Chiron; in the British Museum are several well-authenticated specimens, answering in their minutest particulars with M. Deshayes' description and figure above referred to, collected by Mr. Nuttall in California, and named by him, in manuscript *P. Conradii*.

The emargination noticed by M. Deshayes becomes almost obliterated with age, and the species differs exceedingly in its growth, the transverse ribs varying from smooth to roughly noduled.

Species 47. (Fig. a and b, Mus. Cuming.)

**PURPURA LAPILLUS.** Purp. testâ ovata, spirâ acuta, anfractibus recurvâ, costis frondosis, transversis costatis, costis rugosis, compressis, obtusâ nodosis; columellâ excavâ, ampliter dilatata; albidâ, annulo-luteo conspicuâ fasciata, ant ferrugineo-fuscâ.

The little stone Purpura. Shell ovate, spire sharp, whorls smooth, or transversely closely ridged, ridges obsolescently sealed; columella excavated, aperture dilated; whitish, conspicuously banded with orangy-yellow, or rusty brown.

*Varietât.*

**Testa creberrimâ fimbrirata-laminata.**

Shell very closely fimbrilated laminated.


Eadem. *Buccinum filosum,* Gmelin.

Hab. Shores of Europe.

To particularize every discernible variety of this Protean species would occupy more space than the limits of the present work will allow; suffice it to illustrate the ordinary yellow-banded and lamellated states, and to observe by way of caution, that its modifications of colour and sculpture are infinite. M. Kiener has figured twenty-one different varieties of the *Purpura lapillus*.

Species 48. (Mus. Cuming.)

**PURPURA SQUAMOSA.** Purp. testâ oblongo-ovata, subventricosa, spirâ prominula, suturis profundis; anfractibus rotundatis, transversâ crebricostatis, costis angustis, obscurâ squamosis, interstices concinè striatis; rubido-castaneâ, aperture fuscâ alba.

The squamose Purpura. Shell oblong-ovate, somewhat ventricose, spire prominent, sutures deep; whorls rounded, transversely closely ribbed, ribs narrow, obscurely sealed, interstices neatly striated; reddish chestnut, interior of the aperture white.

**Lamarck,** Anim. sans vert. (Deshayes' edit.), vol. x. p. 74.

Hab. Tigre Bay, Abyssinia.

Approaching rather in form to the Whelk division of the *Buccinum*.

Species 49. (Mus. Cuming.)

**PURPURA ATTENUATA.** Purp. testâ oblongo-ovata, basi peculiariter attenuata, anfractibus superne rotundatis, transversis crebrerrimâ carinatis, carinis irregularibus, angustis, lateralis excavâtis, interdum oblique subtilissimâ lamiâ; utus extusque fuscâ.

The attenuated Purpura. Shell oblong-ovate, peculiarly attenuated at the base, whorls rounded at the upper part, transversely very closely ridged, ridges irregular, narrow, excavated at the sides, sometimes obliquely very finely laminated; brown within and without.

Hab. — ?

Although partaking somewhat of the character of *P. lapillus*, I believe it to be nevertheless distinct.

September, 1846.
Species 50. (Mus. Cuming.)

**Purpura septentrionalis.** *Purp. testá subfusiformi-ovatá, crassá, ponderosá; basi subcanaliculátá et recurvá; anfractibus lacinios, transversis obsolete liratís; aperturá parvá, labro intus obscurá denticuláto; castaneo-fuscá, intus alba.*

**The northern Purpura.** Shell somewhat fusiformy ovate, thick, ponderous, slightly channelled and recurved at the base; whorls smooth, transversely obsoletey ridged; aperture small, lip obscurely denticulated within; chesnut brown, interior white.

**Hab.** Sitka, north-west coast of America

A solid ponderous shell, attenuately produced at the base.

Species 51. (Mus. Cuming.)

**Purpura Freycinetii.** *Purp. testá ovatá, tenui, inflatá, base versus attenuatá, spirá brevissimá, acutá; anfractibus obscurá subtiliter multicaulatis; columellá excavatá, angustá, inferne peculiariter compressá; aperturá amplá; pallide fuscá, obscurá fasciátá, apertura fauce labroque albicántibus.

**Freycinet’s Purpura.** Shell ovate, thin, inflated, attenuated towards the base, spire very short, sharp; whorls obscurely finely many-keeled; columella excavated, narrow, peculiarly compressed at the lower part; aperture large, pale brown, obscurely banded, lip and interior of the aperture whitish.

**Hab.** Kamtschatka.

M. Deshayes describes this species as approximating to the *Purpura Rudolphi*, I fear however that this observation has rather a tendency to mislead; it is much more closely allied to the *Purpura haustrum*, having the same light attenuated form, although sufficiently remote in general character.
PURPURA.

**PLATE XI.**

Species 52. (Mus. Cuming.)

**PURPURA MUSIVA.** Purp. testa subfoformi-ovata, medio angulato, transversim subtiliter striata, seriatim tuberculata, tuberculis ad angulum prominentibus, tabro intus denticulato; albidæ, tuberculorum sericibus alternatione aterriiis et rufo-fuscis, apertura fave cornelescente.

The mosaic PURPURA. Shell somewhat fusiformly ovate, angulated in the middle, transversely finely striated, encircled with rows of tubercles, which are prominent on the angle, lip dentieulated within; white, rows of tubercles alternately jet black and reddish brown, interior of the aperture blueish.

**HAB.** Island of Ticao, Philippines (on the reefs); Cuming.

An interesting species, which may be easily recognized by the alternating colour of the tubercles, those on the angle being reddish or light cherry brown, and of a more prominent structure than those next in order, which are black.

Species 53. (Mus. Cuming.)

**PURPURA TRIGONA.** Purp. testa ovata, croassincaud, medio gibbosa, utrinque attenuata, spirâ brevi; anfracätibus superne angulatis, transversim sulcatis et liratis; apertura subelongata; cornuta et alba, fusco irregulariter strigatâ, columnella et aperture fave lutescente-albis.

The triangular PURPURA. Shell ovate, rather thick, gibbose, attenuated at both ends, spire short; whorls angulated round the upper part, transversely grooved and ridged; aperture somewhat elongated; blue and white, irregularly streaked with reddish brown, columnella and interior of the aperture yellow-white.

**HAB.** China and Malacca (under stones at low water).

Chiefly distinguished by its stout triangular form.

Species 54. (Mus. Cuming.)

**PURPURA RUSTICA.** Purp. testa ovata, spirâ acutâ, transversim lirata et striata, liris plus minuace tuberculatis, longitudinaliter subobscure plicata, tabro intus denticulato et sulcato; longitudinaliter fusco strigata, interstitiis plumaeis, liris interdum pallide fuscescentibus, tuberculis superne cocineo-rufis; columnella et aperture fave arauoidea-inteis.

The oovate PURPURA. Shell ovate, spire sharp, transversely ridged and striated, ridges more or less tuberculated, longitudinally streaked with brown, interstices lead-colour, ridges sometimes tinged with pale yellow, tubercles always deep scarlet-red; columnella and interior of the aperture orange-yellow.

**HAB.** Island of Luzon, Philippines (under stones at low water); Cuming.

M. Kiener, whose natural acuteness of perception seems somewhat inferior to that of his predecessor Lamarck, has figured an example of this species for an immature variety of the P. undata; it is, however, constantly distinct.

The PURPURA rustica is uniformly smaller than the P. undata, and throughout all its variations of form between the little tuberculated example represented by Kiener (Pl. 34. f. 81 c.), and the nearly smooth specimen figured in the accompanying plate, is forcibly characterized by the scarlet-red colouring of the ridges on the tubercles.

Species 55. (Mus. Cuming.)

**PURPURA TUMULOSA.** Purp. testa ovata, subcentricosa, spirâ breviacutâ, anfracätibus quadrireriatione tuberculatis, tuberculis rolandatis, tunudis, turgatis, interstitiis subtiliter sulcatis; albidâ, tuberculis nigrimente-fuscis, columnella et aperture fave flavescentibus.

The tumulous PURPURA. Shell ovate, somewhat ventricose, spire rather short, whorls encircled with four rows of smooth round swollen tubercles, interstices finely grooved; whitish, tubercles blackish-brown, columnella and interior of the aperture yellowish.

**HAB.** Zanzibar (on the reefs).

Easily distinguished by its prominent smooth rounded tubercles, which have a curious swollen appearance.

Species 56. (Mus. Cuming.)

**PURPURA SPECIOSA.** Purp. testa ovata, spirâ brevissimâ; anfracäitus superne depressis, triseriatione tuberculatis, tuberculis acronatis, acutis; albidâ, quadrâ parvis castaneo-fuscis nudique tessellâtâ, zonis albidis inter tuberculos, columnellâ et aperture fave arauoidea-inteis.

The beautiful PURPURA. Shell ovate, spire very short; whorls depressed round the upper part, encircled with three rows of sharp-pointed tubercles; whitish, tesselated throughout with small cherry-brown squares, with white zones between the tubercles, columnella and interior of the aperture arauoidea-yellow.

**VALENCIENNES,** Zool. Humboldt’s Voyage.

**Purpura centiquadra,** Duclos.

**HAB.** Acapulco; Humboldt.

September, 1846.
M. Kiener is evidently unacquainted with the *P. speciosa*; it is quite distinct from the young of the *P. bufon*, to which he refers it; and may be recognised by the peculiar exactness of the little squares into which its colour is distributed.

Species 57. (Mus. Cuming.)

**Purpura Carolensis.** *Purp. testa orbicularis, spirá brevissimá, depressá, anfractibus transversis uterisque hiseratibus tuberculatis, solitii et insignis, arcis internadiis minutissimis regulariter striatis; spadiceo-flavescenti, intus nivéa.*

The Charles Island Purpura. Shell orbicular, spine very short, depressed; whors encried with two rows of very prominent tubercles, and finely engraved lines, the interstices between which are very minutely regularly striated; light bay colour, interior snowy white.

*Hab.* Charles Island, Gallapagos (under stones at low water); Cuming.

Care must be taken not to confound this species with the *P. Cullaenesis*; it is rounder and of more ventricose proportions, is much more strongly tuberculated, and the minute engraved detail is different, the areas between the fine grooves being more numerous and regularly striated.

Species 59. (Fig. a and b. Mus. Cuming.)

**Purpura muricina.** *Purp. testa ovatá vel oblongo-ovatá, anfractibus superne depressís, longitudinaliter plicato-costatá, costis interdum duplicatis, superficie tota minutissimis et crebermis squamosá; sordide fusco vel nigricante, alto articulatá et tessellatá, colunellá labroque chocolate-fuscis, aperture fave coruleae.*

The little mouse Purpura. Shell ovate or oblong-ovate, whors depressed round the upper part, longitudinally plicately ribbed, ribs more or less tuberculated, transversely ribbed, ribs sometimes duplicated, entire surface of the shell very minutely and closely scaled; dun brown or blackish, articulated and tessellated with white, lip and columnella chocolatebrown, interior of the aperture blueish.

*De Blainville. Nov. Ann. du Mus. pl. 10. Fig. 2 to 5.*

**Purpura tessellata.** Sowerby, Genera of Shells.

*Hab.* Philippine Islands, (under stones); Cuming.

This extremely variable, yet well-defined, species, was introduced by M. De Blainville, under three heads, *P. muricina, Muricoides*, and *Turbinoides*; and in M. Kiener’s *Iconographie*, it will be found that the shells represented in his group of ‘Pourpres semi-ricinules’ Fig. 13 and 17, are clearly identical with that figured among his ‘Pourpres buccinoides’ at Fig. 82. The species is subject to a remarkable degree of modification, but may be recognized in all its phases, amongst other characters, by the surface being closely bestudded with minute scales.

Species 60. (Mus. Cuming.)

**Purpura alveolata.** *Purp. testa subsphæricà-ovatá, transversis observó costá, modique inoio-striatá, costis obsoleté tuberculatis, tuberculis obtusis, superficiiis, colunellá subdepressá, labro iutus dentáto; albidá, tuberculis nigris, arcis inter striis nuculá nigri oblongi interruptis, colunellá et aperture fave aurantio-luteá.*

The checker Purpura. Shell somewhat fusiformly ovate, transversely obscurely ribbed, encried throughout with engraved striae, ribs obsoletely tuberculated, tubercules black, spaces between the stria interrupted with oblong black spots, columnella and interior of the aperture orange yellow.

*Hab.* Panama (under stones); Cuming.

A very characteristic species easily recognized by its style of colouring above described.
PURPURA.

PLATE XII.

Species 61. (Mus. Cuming.)

**PURPURA ANAXARES.** Purp. testá ovató, subfusiformis, transversá inciso-straétá et furthert interculato-nodósá, labro inus denticulato; purpuraco-nigrá, nodis albis, apertura fæce purpurá.

**THE DIMINUTIVE PURPURA.** Shell ovate, somewhat fusiform, transversely deeply striated and strongly tubercularly noduled, lip denticulated within; purple-black, nodules white, interior of the aperture dark purple.


**Hab.** Lord Hood’s Island (on the reefs); Cuming.

Distinguished by its conspicuous white nodules.

Species 62. (Mus. Cuming.)

**PURPURA DIademA.** Purp. testá subfusiformis-ovató, spirá acuminatá; anfractibus superióre depressis, subtiliter impresso-spirátilis, stríis obsoleté punctatís; spirátilis bicirratiis, carinis tuberculatis, tuberculis compressís, erectis; pallide spadiscé, intus atáth.

**THE DIADREM PURPURA.** Shell somewhat fusiform ovate, spire acuminated; whorls depressed round the upper part, finely impressly striated, strie obsoletely punctured; spirally double-keeled, keels tuberculated, tubercles compressed, erect; light bay colour, interior white.

**Hab.** Payta (on the reefs); Cuming.

Easily recognized by its compressly tubercled keels.

Species 63. (Mus. Cuming.)

**PURPURA COSTULARIS.** Purp. testá fusiformis, longitudi-naliter plicato-costató, transversa acerborum et substiliumtis tritátis, liris minutissimis squamosís; apertúra parvá, labro serrató; violaceo-albá, columnátt si et apertura fæce cicíde violaceís.

**THE SMALL-RIBBED PURPURA.** Shell fusiform, longitudinally plicated, transversely very closely and finely ridged, ridges very minutely scaled; aperture small, lip serrated; violet-tinged white, columnella and interior of the aperture deep violet.


Murex costularis, Lamarck.

**Hab.** Isle of Masbate, Philippines (under stones at low water); Cuming.

I include this shell in the present genus on account of its affinity with the *P. galea*, violacea, &c.

Species 64. (Mus. Taylor.)

**PURPURA UNIFASCIALIS.** Purp. testá ovató, tenni, ven-

tricosá, anfractibus transversis tennissimis stríatais, bicirratiis nodosis, superióre depressis; columnátt si àngulatá, aperturá dilatátá, substiliumtis sulcatás; spadiceo-fuscá, fasciá obílá angustá medió cingulátá, apertura sulcis prope labrona reflexentibus.

**THE SINGLE-BANDED PURPURA.** Shell ovate, thin, ventricose, whorls transversely very finely striated, encircled with two rows of nodules, depressed round the upper part; columnella narrow, aperture dilated, finely grooved; light bay colour, encircled round the middle by a narrow whitish band, grooves of the aperture red near the lip.

Lamarck, Anim. sans. vert. (Deshayes edit.) vol. x. p. 86.

**Hab.** — ?

This is not a variety of the *P. haenastoma*, as M. Kiener supposes, but a very excellent species, distinguished, without reference to the banded style of colouring, by its light inflated growth and other peculiarities of detail; it approaches very closely to the *P. Blainvillii*, but the aperture is proportionally larger and more dilated, the columnella is not, moreover, edged with red. The shell before me answers with peculiar accuracy, irrespective of the band, both with Lamarck’s description, and the figure cited by him in the *Encyclopédie Méthodique*.

Species 65. (Mus. Cuming.)

**PURPURA GALLEA.** Purp. testá abbreviato-ovató, Pyrula-fórmis, amplíter umbilicatá, spirá brevi; anfractibus, longitudinaliter plicata, superióre plano-depressis, transverso costatis, et lacecúrre subtiliter tubátis, liris minutissimis squamosís; albá, cocinico pallidissimá tinctá.

**THE HELMET PURPURA.** Shell abbreviately ovate, Pyrula-shaped, largely umblicated, spire short; whorls longitudinally plicated, flatly depressed round the upper part, transversely ribbed and very closely finely ridged, ridges very minutely scaled; white, very faintly tinged with scarlet.


pl. 160, fig. 1518, 1519.

Pyrula abbreviata, Lamarck.

**Hab.** Isle of Luzon, Philippines (under stones at low water); Cuming.

This remarkable species is very closely allied, generically, to the *Pyrula Mace*, but its affinity with the *Purpura violacea* and others, renders the present the most appropriate genus for its reception.

September, 1846.
Species 66. (Mus. Taylor.)

**Purpura textiliosa.** *Purp. testá ovatá, ventricová, transversum nudique osseolo costatá, costis superficiariis, irregularibus, confoetis, interstitialibus subdistinctis perdulis, aperturae ampliae; sordide alba, labro intus pallide aurantio tingtio.

**The intertwined Purpura.** Shell ovate, ventricose, transversely obsolescently ribbed throughout, ribs superficial, irregular, close-set, interstices rather indistinctly punctured, aperture large; dull white, lip paled tinged within with orange.


Amply distinguished from the *P. suecica* by the superficial character of the encircling ribs, the *P. textiliosa* yet passes into that species through a succession of intermediate states.

Species 67. (Mus. Hanley.)

**Purpura biserialis.** *Purp. testá oblongo-ovatá, spirá conico-convexa, anfractibus transversis tenuissimis inciso-depressis, superficiei depressa, biserialibus tuberculis; pallide grisea, strisia fusca, fusco irregulariter striatá, colunella vivida rufa, apertura faveo pallida, rufa prope labrum tingtio.

**The double row Purpura.** Shell oblong-ovate, spire conically acute, whorls encircled with fine engraved striae, depressed round the upper part, beneath which are two rows of tubercles; pale grey colour, striae brown, irregularly streaked with brown, colunella bright red, interior of the aperture pale, tinged with red towards the lip.

De Blainville, *Nov. Ann. du Mus.* Pl. 11. Fig. 11, *Hab.?*

I venture to refer this shell to *P. biserialis* of De Blainville; it answers with peculiar accuracy to his description, and is quite distinct from any other species of the present monograph.

Species 68. (Mus. Cuming.)

**Purpura squamulosa.** *Purp. testá globosio-ovatá, basae versus attenuatá, spirá breviissimá, depressa; anfractibus superficiei rotundatis, liris subtillis minuti squamulosis nudique crebreriuí intus; alba, colunella et aperturae faveo tenuissimo violaceis.

**The finely scaled Purpura.** Shell globosely ovate, attenuated towards the base, spire rather short, depressed; whorls rounded at the upper part, very closely encircled throughout with fine minutely scaled ridges; white, colunella and interior of the aperture pale violet.

Hab. Island of Ticoa, Philippines (on the reefs at low water); Cuming.

This delicately sculptured species has very much the form of the *P. violacea*, from Taheite, but it is perfectly distinct; the entire surface is encircled with minutely scaled ridges similar in pattern to those of the beautiful little *Murex squamulosis* of Philippi, and the colour of the mouth is a pale violet of a different tint.

Species 69. (Mus. Cuming.)

**Purpura Madreporearum.** *Purp. testá depressio-ovatá, spirá breviissimá, interdum ovatá; transversum tenuissimá striatá, scabrá; apertura amplá, marginibus latissimis dilatatis, colunellá plano-depressá; alba, colunellá vivida purpuro-violacea, aperturae faveo purpureo-violacea parte tinctá.

**The Madrepore Purpura.** Shell depressingly ovate, spire very short, sometimes concave; transversely very finely striated, rough; aperture large, margins very widely dilated, colunella flatly depressed; white, colunella rich purple-violet, interior of the aperture partially stained with purple violet.

Sowerby, Genera of Shells, *Purpura.*

*Purpura madreporeata* Quoy and Gaimard.

*Hab.* Eastern Seas (upon madrepores).

I adopt Mr. Sowerby's name for this interesting parasite, first, because he introduced it simultaneously if not prior to that of M. M. Quoy and Gaimard, and secondly because the name assigned to it by those naturalists is a very inappropriate one, there being nothing in the structure of the shell that can be designated a tooth.

Species 70. (Mus. Cuming.)

**Purpura violacea.** *Purp. testá ovatá, crassá, ponderosá, basae versus attenuatá, submacrocostatá, spirá breviissimá; transversum osseolitum striatá, scabrá; alba, colunellá et aperturae faveo vivide purpureo-violaces.

**The violet Purpura.** Shell pyriformly ovate, thick, ponderous, attenuated and somewhat channelled at the base, spire very short, transversely obsolescently striated, rough; white, colunella and interior of the aperture rich purple violet.


*Murex Neritoides,* Chemnitz (not of Linnaeus).

*Fusus Neritoides,* Enc. Méth.

*Pyrra Neritoidea,* Lamarck.

*Purpura Neritoides,* Quoy and Gaimard.

*Hab.* Taheite (on the reefs at low water); Cuming.

This well-known shell may be easily distinguished from the *Purpura squamulosa*, by its rude structure and deep purple violet colouring.
Species 71. (Mus. Brit.)

**Purpura Quoyi.** *Purp. testà subfoveiformi, utrinque pro-
ducta, anfractibus superà concavo-depressis, longitudi-
naliter subtilissimè laminatis, costis lirvisse rugosis aut
scabrosis circutiis; columna parè, labro latius creatu;
albidà ant. fuscescente, apertura favee purpurea-fuscaé.

**Quoy's Purpura.** Shell somewhat fusiform, produced at
each end, whorls concavely depressed round the upper
part, longitudinallly very finely laminated, encircled
with rough and sebaceous ribs and ridges; columella
excavated, aperture small, lip crenated within; whitish
or light brown, interior of the aperture purple brown.


**Hab.** New Zealand.

M. Kiener appears to have confoimded this interesting
little species with the following.

Species 72. (Mus. Cuming.)

**Purpura scobina.** *Purp. testà oblongo-ovata, anfractibus
covexis, liris transversis et longitudinalibus creberrimè
clothatis; nigricante-fusca, liris transversis interdum
albis, columnellar purpureo-fusca, apertura favee conv-
tescente.

**The file Purpura.** Shell oblong-ovate, whorls convex,
very closely latticed with transverse and longitudinal
ridges; blackish-brown, transverse ridges sometimes
white, columnella purple-brown, interior of the ap-
ture blueish.


**Hab.** New Zealand.

An extremely variable species, but one whose different
phases exhibit a good specific affinity.

Species 73. (Mus. Cuming.)

**Purpura nux.** *Purp. testà ovata, crassissimè, subventri-
cosà, anfractibus covexis, transversis irregulariter
multilatetatis, lirarum interstitione laminis decussatis, labra
latius dentata; olivaceo-fusca varia, hic illic albispe-
talà, columnella et apertura favee albin.

**The nut Purpura.** Shell ovate, rather thick, somewhat
ventricose, whorls convex, encircled with numerous
irregular ridges, the interstices between which are
crossed with minute laminae, lip toothed within;
variegated with olive brown, dotted with white,
columella and interior of the aperture white.

| Hab. —— ? |

An interesting species, not immediately allied with any
hitherto described.

Species 74. (Mus. Brit.)

**Purpura spiralis.** *Purp. testà ovata, tenui, inflata,
costis quinque prominentibus conviccatî spiriliter circutiis,
interstitioni longitudinaliter striatis, costis latis, plowatis,
levibus, lateribus excavatis; albidà-fuscescente, costis
rufo-fusca.

The spiral Purpura. Shell ovate, thin, inflated, conspicu-
ously spirally encircled with five prominent ribs,
smooth and flattened at the summit, excavated at the
sides, with the interstices striated longitudinally;
whitish-brown, ribs reddish brown.


| Hab. —— ? |

"It is very possible," says M. Deshayes, "that this shell
may constitute a species distinct from the *P. cingulata*
(*P. trochlea, Lam.*)." There cannot, I think, be a doubt
of it; it is uniformly larger, more inflated, and has a larger
number of ribs.

Species 75. (Mus. Cuming.)

**Purpura scalariformis.** *Purp. testà acuminato-turretûd,
anfractibus superà angulatis, sutureis depressis, infra
angulàm varianis et striatis, currinis irregularibus,
aeute; cetus intusque albà.

The Scalaria-shaped Purpura. Shell acuminately
turreted, whorls angulated round the upper part,
depressed at the sutures, keeled and striated beneath
the angle, keels irregular, sharp; white within and
without.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. x. p. 72.

| Habit. Juan Fernandez (in rocky places at low water);
Cuming. |

The sculpture and general tone of this shell so far re-
sembles the *P. galea*, that it has been considered an
elongated growth of that species. The *P. deformis*
of Lamarck, according to Kiener, is a monstrity of the
*P. galea*; and the *P. brevis* of De Blainville, the young of
the same.

October, 1846.
Species 76. (Mus. Cuming.)

Purpura cingulata. *Purp. testá oblongo-ovátá, costis tribus aut minoribus spiraliiter cingulati, costis valdè prominentibus, planatis, locubibus, stringe excavatis, costarum interstitialium sublatissimae striatis; incurvo-albicante, apertura fave fuso finitā.

The belted Purpura. Shell oblong-ovate, spirally encircled with three, or fewer, ribs, which are peculiarly prominent, smooth and flattened at the summit, and excavated at the sides, interstices between the ribs very finely striated; ashy-white, interior of the aperture stained with brown.

Deshayes, Anim. sans vert. vol. x. p. 86. note. 
*Buccinum cingulatum*, Linnaeus. 
Purpura trochlea, Lamarck. 
*Hab.* Cape of Good Hope.

The prominence and regularity of the ribs impart a peculiar screw-like appearance to the shell, the effect of which is increased by the depression of the sutureal portion of the spire.

Species 77. (Mus. Cuming.)

Purpura affinis. *Purp. testá recto-fusiformi, crassá, solidá, spirá acute acuminatá, anfractibus tuberculis solidis prominentibus biseriatis, interstitialibus striatis; columellá obsoletá plicatá; apertura parva, labro intus dentatá; albá, apertura fave crenato-fuscescente.

The allied Purpura. Shell straightly fusiform, thick, solid, spire sharply acuminated, whors encircled with two rows of prominent solid tubercles, interstices striated; columella obsolescently plaited, aperture small, lip toothed within; white, interior of the aperture saffron-brown.

*Hab.* Elizabeth Island, South Seas, (on exposed rocks at half-tide); Cuming.

I have examined several examples of this species, and find it uniformly distinct from the *P. armigera* to which it is so closely allied.

Species 78. (Mus. Cuming.)


The gibbous Purpura. Shell ovate, somewhat ventricose, spire rather short, whors concentrically pliately ribbed, ribs swollen, somewhat nodose, transversely very finely and closely keeled, keels sharp, irregular, minutely sealed; white, tinged, with violet, interior of the aperture deep violet.

A small gibbous species approximating in general character to some of the *Mures*.

Species 79. (Mus. Cuming.)

Purpura Callaoensis. *Purp. testá ovalá, subdepressá, spirá brevissimá; anfractibus tuberculis aut obsolete nodosis, transversis dense interstitibus sulcatis, arcos inter sinuos minutiissimá regulariter striatis; columellá excavatá, apertura amplá, labro cremlato; sordide albá, fuscescente subindistinctè longitudinaliter nudiati, columellá et apertura fave albdís.

The Callao Purpura. Shell ovate, a little depressed, spire very short; whors smooth or obsolescently nodose, transversely very finely grooved, areas between the grooves very minutely regularly striated; columella excavated, aperture large, lip crenulated; dull white, rather indistinctly longitudinally festooned with light brown, columella and interior of the aperture white.

Gray, Spicilegia Zoologica p. 4. pl. 6. f. 11. 
*Hab.* Callao Bay; Hennah, Cuming.

An interesting little species, described some years since by Mr. Gray, of which there are several examples in the British Museum.

Species 80. (Mus. Brit.)

Purpura Janelli. *Purp. testá ovalá, medio obesá, basi contractá, spirá brevi; anfractibus transversis striatis, supercó declicibus, infra tuberculá rotundátis obtusis striátás arcuatás; columellá arcuatá, labro intus dentatú et littato; albidá, epidemide olivaceo-fusco indutá, columellá rubro-nigricante, apertura fave carnosae.

Janelle’s Purpura. Shell ovate, stout in the middle, contracted at the base, spire short; whors transversely striated, sloping round the top, armed beneath with rows of blunt rounded tubercles; columella arched, lip dentilculated and ridged within; whitish, covered by an olive-brown epidermis; columella reddish black, interior of the aperture bluish.

Kienzer, Icon. Coq. viv. p. 122. pl. 31. f. 89. 
*Hab.* Payta; Kienzer.

A very rare and characteristic species of which there are two specimens in the British Museum.
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<td>70</td>
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<td>xanthostoma, Broderip</td>
<td>V.</td>
<td>24</td>
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MONOGRAPH

OF THE GENUS

R I C I N U L A.

"These are thy glorious works, Parent of good, Almighty!"—Millon.
RICINULA.

Plate 1.

Genus *Ricinula*, Lamarck.

*Testa suborbiculari-vel fusiformi-ovata, sepiniin taberculata ant spinosa, spiria una brevissimae, depressa, una acuminata; aperturâ subangulata, columna subangulata, interdum corrugata ant dentata, labro intus dentato, dentibus nodulosis ant pliciformibus, labi margine interdum, antea raro, digitato. Operculum cornu-um, tenue, semilunare.*

Shell somewhat orbicularly or fusiformly ovate, most frequently tuberculated or spined, spire sometimes very short and depressed, sometimes acuminate; aperture rather narrow, columna a little excavated, sometimes wrinkled or toothed, lip toothed within, teeth nodulous or flat-like, edge of the lip sometimes, but rarely, digitated. Operculum horny, thin, semilunar.

In adopting the genus *Ricinula*, I propose to include a much wider range of species than has been hitherto referred to it; namely, that fusiform series distinguished from *Buccinum* and *Porpura* by the nodulate dentition of the inner lip, arranged by M. Kiener as a section of the latter genus, under the significant title of “Les Pompres semi-rimiculées”; and of which the *Porpura buccinum* of authors may be regarded as the type. It cannot be disputed that there are species in the genera *Ricinula*, in its limited acception, and *Porpura*, in which it is difficult to define any generic difference; as for example, between the *P. hystric* and the *R. arachnoidea*, or between the *P. aperta* and certain varieties of the *R. clothraeta*; but the alteration of names in familiar usage should, as far as possible, be avoided. A large proportion of the species I am about to characterize as *Ricinula*, have not been hitherto described, and their connection with the *Porpura proper*, is one of such very remote affinity, that I prefer elevating the genus under consideration into one of more importance, to the creation of a new genus, or to the fusion of the whole into one, after the manner of the French naturalists.

The soft parts of the typical species of *Ricinula* differ in no respect from those of *Porpura*, and, in both genera, are furnished with a thin horny operculum.

Species 1. (Mus. Cuming.)

*Ricinula elegans*. *Ricin. testâ rotundato-ovata, basi attenuata, brevissimae; transversâ regulariter spinosa, spinis pliciformibus, prominentibus, margine versus gradatim longioribus, interstâlis minutiissimae et pel-

cherialè squamatis, columna labroque intus conspicue dentatis; albicante, aperturâ obtusae, lineâ vivide rofâ conspicue circundata.*

The elegant *Ricinula*. Shell rotundately ovate, attenuated at the base, spire very short; transversely regularly spinous, spines scale-like, prominent, gradually longer towards the margin, interspaces very minutely and beautifully scaled, lip and columna conspicuously toothed within; whitish, aperture ivory white, very prettily encircled with a bright red line.


Beechey’s Voyage, Moll. pl. 36. f. 4.

Hab. Lord Hood’s Island (on reefs at low water); Cuming.

No one can fail to recognize this very rare and delicate species by the bright red line which encircles the aperture; in other respects it mostly resembles the *R. arachnoidea*.

Species 2. (Mus. Cuming.)

*Ricinula digitata*. *Ricin. testâ obovata, peculiariter depressâ, spirâ brevissimâ; transversâ obtusâ-costâ; minutiissimâ crista-squamatâ, costis spirâ versus nodulis ant tuberculatis, frondulis depresso-palmatis, superne majoribus, ad marginea depressiibus; albida ant intuscente, aperturâ vivide intus-aurea.*

The fingered *Ricinula*. Shell obviate, peculiarly depressed, spire rather short; transversely obtusely ribbed, very minutely crisply scaled, ribs nodose or tuberculated towards the spire, ending on the margin in depressely palmate fronds, the upper of which are the larger; whitish or yellowish, aperture bright yellowish orange.

Lamarck, Ann. sans vert. (Deshayes edit.) vol. x. p. 50.

*Ricinula (Porpura) lobata*, Dr Blainville.

Hab. Lord Hood’s Island (on the reefs at low water); Cuming.

Variety 3.

*Testa fusca, aperturâ vivide nigricante-costâ.*

Shell brown, with the aperture bright dark chestnut.

*Ricinula (Porpura) lobata*, Deshayes.

Hab. Sechelle Islands (on the reefs at low water); Ron-sean.

I am sorry to be obliged to differ from two such authorities as M. M. De Blainville and Deshayes in regard to the specific rank of the Sechelle Island variety; there cannot be a doubt, in my estimation, of the immediate

August, 1846.
affinity of the shells here represented; they exhibit no
difference except in colour; and I think, with Mr. Sowerby,
that they cannot be regarded otherwise than as varieties
of one and the same species. The arrangement of synonymes
above recorded, show that M. De Blainville erroneously
considered the dark variety as the Lamarckian type.

Species 3. (Mus. Cuming.)

Ricinula horrida. Ricin. testá ovato-globosá, spirá
brevissimá, transversim tuberculatá, tuberculis brevisís,
squamiformibus, acutis, columná labroque fortíter
dentatís; albidá aut lutescèta, tuberculis nigricantibus,
aperturá violáceá.

The rough Ricinula. Shell ovately globose, spire very
short, transversely tuberculated, tubercles short, scale-
like, sharp, lip and column strongly toothed; whitish or yellowish, tubercles blackish, aperture
violet.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 47.
Murex menitoides, Gmelín, (not of Linnaeus).
Ricinella violacea, Schumacher.
Hab. Philippine and Society Islands (on the reefs at low
water); Cuming.

This well-known species is distinguishable from all
others by its black tubercles and violet aperture.

Species 4. (Mus. Cuming.)

Ricinula iodoena. Ricin. testá suborbiculari-ovatá,
crassá, ponderáss, subdepressá, spirá brevissimá, trans-
versim striatá, et obtusa vel obsoleté costatá, costis ad
marginem primumiusibus, aperturá fortíter dentatás,
superae calloso; albiceata, costis fusco-nigricantibus,
striis internasibus fusciscentibus, aperturá violete rosea-
poratá.

The violet mouth Ricinula. Shell somewhat orbicul-
arily ovate, thick, ponderous, rather depressed, spire
very short, transversely striated and obtusely, or
rather obsoletely, ribbed, ribs more prominent at the
margin, aperture strongly toothed, thickenèd at the
upper part; whitish, ribs brownish-black, intermediate
strike brown, aperture bright pinkish purple.

Hab. New Zealand, Lesson; Straits of Macassar; Rohr.

An interesting species, introduced by M. Lesson, and
forming a valuable addition to the typical portion of the
genus; it may be readily distinguished from the R. horrida
by the absence of tubercles, in place of which it is encircled
with conspicuous dark bands, and the more pinky tinge
of the purple which characterizes the aperture.

Species 5. (Mus. Cuming.)

Ricinula arachnoïdes. Ricin. testá obovatá, spirá
brevissimá, transversim costatá, costis spinis squama-
formibus varicolatís, spinis marginem transversim
costatis, striis internasibus fusciscentibus, aperturá
violete roseáporatá.

The spider-like Ricinula. Shell obovate, spire very
short, transversely ribbed, ribs variegated with scale-
like spines, spines longer towards the margin, inter-
stices between the ribs striated, striae sometimes mi-
nutely scaled; yellowish, ribs white, spines partially
or entirely blackish, aperture sometimes encircled
with yellow spots.

Lamarck, Anim. sans vert. (Deshayes edit.) vol. x. p. 49.
Murex vicinus, Linnæus.

Unspotted variety, Ricinula albolaris, De Blainville.
Hab. Philippine and Society Islands; Cuming.

Here again I must be allowed to differ from M. M. De
Blainville and Deshayes. There can be no doubt of the
specific affinity between R. albolaris of the former, and the
R. arachnoïdes of Lamarck; the "stries subécaulescèse"
to which M. Deshayes refers, as distinguishing the former,
are but a modification of growth, the striae being sometimes
smooth, sometimes, and especially in young individualls,
developed in minute scales, characteristic of the normal
state. The spines of this species are more or less coloured
black, sometimes altogether white, and the presence or
absence of yellow spots at the aperture is subject to the
same law of variety.
RICINULA.

Species 6. (Mus. Cuming.)

RICINULA MUTICA. Ricin. testa ovato-globosa, crassissimâ, basi subattenuatâ, spirâ brevissimâ, obtusâ; transversim inciso-striatâ, muticâ, columellâ subexcavatâ, terigatâ, labro intus conspiciuâ dentato; fusco-nigrimente, apert. alba, aut pallide violaceo-alba.

THE SMOOTH RICINULA. Shell ovately globose, very thick, a little attenuated at the base, spire very short, obtuse; transversely deeply striated, smooth, col.
mella slightly excavated, smooth, lip conspicuously toothed within; brownish black, aperture white, or pale violet-tinged white.


Hab. Mozambique (on coral reefs at low water); Hennah.

A very distinctly characterized species, and one that is rarely met with; the R. pisoliana of Lamark is referred to the young state, on the testimony of M. Kiener.

Species 7. (Mus. Cuming.)

RICINULA Porphyrastoma. Ricin. testa oblongo-ovata, utrinque attenuata, spirâ subprominente, acutâ; longitudinaliter concentricâ costatâ, transversim peculiariter liratâ, liris numerus proieris, superficiis, inter costas profundâ excavatâ, aperturâ utrinque denticulatâ; lividâ-olivaceâ, liris cinereo-albicantibus, aperturâ cividâ purpureo-lavâcâ.

THE PURPLE-MOUTH RICINULA. Shell oblong-ovate, attenuated at both ends, spire rather prominent, sharp; longitudinally concentrically ribbed, transversely peculiarly ridged, ridges numerous, narrow, close-set, deeply excavated between the ribs, aperture denticulated on both sides; livid olive colour, ridges ash-white, aperture deep purple-lake.


Hab. Marquesas Islands (on the reefs at low water); Rohr.

An interesting new species distinguished by the erect character of the transverse ridges, especially across the interstices between the ribs, which, however, become somewhat obsolete with age; the rich purple-lake colouring of the aperture is also worthy of notice.

Species 8. (Mus. Cuming.)

RICINULA MENDICARIA. Ricin. testa ovata, medio obesa,

uutrinque subattenuatâ, anfractibus basi subindistinctâ liratâ, superfice verrucatâ, vel longitudinaliter obsol. nodoso-costatis, columella superne excavatâ, labro intus medio denticulato; plerunque atro laticllum alternâ transversim conspiciuâ teniâtâ, interdum atrâ, teniâ lateâ unica angulari cincta, aperturâ cinnamomeo-panpereâ.

THE PATCH-WORK RICINULA. Shell ovate, stout in the middle, attenuated at each end, whorls rather indistinctly ridged at the base, either smooth or longitudinally obsoletely nodosely ribbed above, columella excavated at the upper part, lip denticulated within in the middle; generally alternately filleted with black and yellow, sometimes black, encircled by a single narrow yellow fillet, aperture cinnamome-purple.

Colonella mendicaria, Lamark.

Hab. Philippine Islands; Cuming. Zanzibar (for the dark single-zoned variety); Thorne.

The well-known Colonella mendicaria of Lamark, which has been already discarded from that genus by Mr. Sowerby, in his recent admirable monograph in the 'Thesaurus Conchyliorum', belongs to that interesting group of species, distinguished by M. Kiener under the characteristic title of "Les Pourpres semi-ricinules", and which I propose to include under the Lamarekian head of Ricinula.

Species 9. (Fig. a and b Mus. Cuming.)

RICINULA CLATHRATA. Ricin. testa rotundato-ovata, spirâ brevissimâ; longitudinaliter crebricaricâ, varicibus costis spiniferae decussatis, spinis squamiformibus, prominentibus, marginis versus longioribus, interdum striatâ, striis minutissimâ squamatis; columella superne subexcavatâ, infra pictato-rugosa; extus ferrugineo-fuscâ et alba, intus cinereo-violaceâ.

THE LATTICED RICINULA. Shell rotundately ovate, spire rather short; longitudinally closely varicose, varices crossed with spiniferous ribs, spines scale-like, prominent, longer towards the margin, interstices striated, strie very minutely scalèd; columella a little excavated at the upper part, plicatey wrinkled beneath; exterior white and rusty brown, interior blueish violet.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. x. p. 49. Hab. Elizabeth Island (on the reefs at low water); Cuming.

Testa junior Ricinula miticula, Lamark.

August, 1846.
Variety β. (Fig. 9. a.)

Testa parva, spinis brevioreis; albida, inter cicidæ purpureo-lacca.

Shell small, with the spines rather short; white, interior rich purple-lake.

Hab. Island of Anam (on the reefs at low water); Cuming.

The very beautiful and characteristic variety of this species, represented at fig. 9 a, does not appear to have been hitherto noticed.

Species 10. (Mus. Cuming.)

Ricinula morus. Ricin. testâ ovata, crassâ, obesa, spirâ breviscandâ, transversim costatâ, costis tuberculatis, lirâ angulâ, interstitiis interdum minuâficissimâ squamatis, interterciate; carunculo-albâ, tuberculis plurimisque anthracinis, aperturâ cicidâ violaceâ.

The mulberry Ricinula. Shell ovate, thick, stout, spire rather short, transversely ribbed, ribs tuberculated, and a narrow ridge running between them with the interstices very minutely sealed; bluish white, tubercles generally coal-black, aperture rich violet.

Lamarck, Anim. sans vert. (Deshayes' edit.); vol. x. p. 51.

Purpura spheridea, Duclos.

Hab. Lord Hood's Island (on the reefs at low water); Cuming.

The Ricinula morus is sometimes entirely white, though of much more common occurrence with the tubercles black. The R. aspera, which M. Kiener has confounded with this species, is distinct, as M. Deshayes affirms, but it requires an acute eye to detect the difference.

Species 11. (Mus. Cuming.)

Ricinula tuberculata. Ricin. testâ oblongo-ovata, spirâ breviscandâ; transversim et longitudinaliter forciostatâ, lirâ unitâ obesa, vel duabus angulis minuâfissimâ squamatis, intercostis cinquatâ; albidâ, costis integratâ, tuberculatis minutissimis, aperturâ cicidâ violaceâ.

The tubercled Ricinula. Shell oblong-ovate, spire rather short; encircled with rows of tubercles, tubercles somewhat square, interstices finely deeply striated; bluish white, tubercles coal-black, sometimes altogether coal-black, aperture violet-black, teeth white.


Eadem. Purpura marginata, De Blainville.

Purpura granulata, Duclos.

Hab. Lord Hood and Elizabeth Islands (on the reefs at low water); Cuming.

The leading feature of distinction between this and the preceding species, is, that in the former the interstices be-

between the tubercles are simply engraved with strie, whilst in the latter, they are characterized by a distinct ridge, the hollow on either side of which is crossed at frequent intervals by minute scales; the tubercles are also uniformly larger and more obtuse.

Species 12. (Mus. Cuming.)

Ricinula chrysostoma. Ricin. testâ oblongâ, spirâ unciâ abbreviatâ; transversim undique inciso-striatâ, striis subdistantibus, longitudinaliter varicatis, variculis squamis vel obtinis vel spiniferis et erectis ornatâs; ferrugineo-fuscâ, striis satratioirs, zone albis interruptâs interdum cinctâ, aperturâ violacæ interdum aurantia.

The golden-mouth Ricinula. Shell oblong, spire sometimes acuminated, sometimes abbreviated; transversely deeply striated throughout, strie rather distant, longitudinal varieco, varices ornamented with scales which are either obtuse or spiniferous; rusty brown, strie darker, sometimes encircled with interrupted white zones, aperture violet, sometimes orange.

Deshayes, Magasin de Zool. 1844. Moll. pl. 86.

Hab. Islands of Bohol and Ticao, Philippines (on the reefs at low water); Cuming.

An extremely variable species in form, sculpture, and colour; the shell is sometimes elongated, sometimes short, and the squamate varices above described in the typical specimens become modified into mere nodulated ridges. The colour of the aperture varies from purple-violet to bright golden-yellow, as in the specimen described and figured by M. Deshayes.

Species 13. (Mus. Cuming.)

Ricinula aspera. Ricin. testâ obtusâ ovata, spirâ breviâ; transversim et longitudinaliter forciostatâ, lirâ unitâ obesa, vel duas angulis minuâfissimâ squamatis, intercostis cinctâ; albidâ, costâm longitudinaliter latere sinistro fusco-nigraeactâ, aperturâ cicidâ violaceâ.

The rough Ricinula. Shell obtusely ovate, spire short; transversely and longitudinally strongly ribbed, encircled between the ribs with a single stout ridge or two narrow ones; whitish, left side of the longitudinal ribs brownish-black, aperture bright purple.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 51.

Hab. Island of Masbate, Philippines (on the reefs at low water); Cuming.

The sculpture of this shell is very similar to that of the R. morus, and M. Kiener has published it as a variety of that species; I am, however, inclined to think with M. Deshayes that it is distinct, there is a peculiarity in the form, painting, and general aspect, by which it may always be recognised.
RICINULA.

Plate III.

Species. 14. (Mus. Cuming.)

RICINULA SIDERE.A. Ricin. testa fusiformi-ovata, basi subcontractata, transversa striata, longitudinale tuberculis subobtusis; alt. annulat. costata, costis pallide-roseis, liris lineisque angustis, interstices obscuris, liris violetae, apertura violacea.

The cORDED Ricinula. Shell oblong-ovate, obliquely ribbed, ribs broad, solid, rather obscure, transversely alternately ridged and incised, ridges obtuse to nodose; bluish white, ridges and lines jet black, aperture deep violet.


Hab. Island of Butias and Masbate, Philippines (on the reefs and under stones at low water); Cuming.

A pure white shell miscellaneously sprinkled with conspicuous small square reddish-brown spots.

Species 15. (Mus. Cuming.)

RICINULA BELLA. Ricin. testa subcylindraceo-fusiformis, atrigurne attenuata, basi contracta et paululum recurva, longitudinaliter concentricis costata, costis subobtusis, conflatis, transversam liratam, liris angustis, interstices striatis; pallide rosea, fusca duobus castaeuis, liris costis super roseis, cicatrizata.

The PRETTY RICINULA. Shell cylindrically fusiform, attenuated at both ends, contracted and a little recurved at the base, longitudinally concentrically ribbed, ribs rather obtuse, close-set, transversely ridged, ridges narrow, interstices striated; pale rose, encircled by two chestnut bands, on which the ridges are rose on crossing the ribs.


Hab. Island of Capul, Philippines (on the reefs at low water); Cuming.

An extremely pretty species of a pale rose colour, encircled with two rather broad bright chestnut bands, each band having two ridges passing through them, exhibiting a particularly neat appearance, from their being light on crossing the ribs.

Species 16. (Mus. Cuming.)

RICINULA FUNICULATA. Ricin. testa oblonga-ovata, obliqua costata, costis la
tis, solidis, subobtusis, transversim alternate striata, liris apertura nodosa.

caruleo-albicante, liris lineisque aterrimis, apertura vivide violacea.

The enChained RICINULA. Shell somewhat fusiformly ovate, whorls slightly concave round the upper part,

August, 1846.
transversely ornamented with rows of tubercles, which are close-set somewhat square and pointed, interstices striated, strina very minutely scaled; yellowish-white, tubercules rusty-black, aperture purple-violet or orange-red.


*Purpura fragum and concatenata*, De Blainville.

**Hab.** Swan Point, North Australia (under stones at low water).

The species above cited from De Blainville’s monograph, are evidently varieties of the same; I have specimens of each before me from the collection of Mr. Cuming, and can observe no other difference than a change of colour in the aperture.

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**Species 19.** (Mus. Cuming.)

*Ricinula spectrum*. Ricin. testá oblongo-ovata, spirá acuminata, longitudinaliter obliquè costata, costis sub-obtusis, tuberculata, tuberculis compressis, intersticiis striatis; intus extusque albd.

**The spectre Ricinula.** Shell oblong-ovate, spire acuminated, longitudinally obliquely ribbed, ribs rather obtuse, tuberculated, tubercules compressed, interstices striated; pure white within and without.

**Reeve, Pro. Zool. Soc., 1846.**

**Hab.** Isle of Capul, Philippines (on the reefs at low water); Cuming.

A stout solid tuberculated shell, which appears to be naturally colourless, the shell here represented being in the finest possible condition.

---

**Species 20.** (Mus. Cuming.)

*Ricinula pulchra*. Ricin. testá cylindraceo-ovata, medio obvá, utrinque attenuata, basi recurvá, anfractibus rotundatis, concentricè crebricostatis, transversē liratis, liris confertis, costas super compresso-nodulatīs; luteo-aurantiâ, lirarum intersticiis fusco-lineatīs, apertūrâ, apice basique pulcherriā roseis.

**The beautiful Ricinula.** Shell cylindrically ovate, stout in the middle, attenuated at both ends, recurved at the base; whors rounded, concentricly closely ribbed, transversely ridged, ridges close-set, compressly nodelled across the ribs; yellowish orange, interstices between the ridges lineated with brown; aperture, base, and apex, prettily stained with pink.

**Reeve, Pro. Zool. Soc., 1846.**

**Hab.** Island of Capul, Philippines (on the reefs at low water); Cuming.

Both the sculpture and colouring of this species are developed with peculiar neatness; the former consists of a regular concentric succession of compressed nodules, ranging somewhat obliquely, the latter of an uniform yellow or light orange brown, encircled in the interspaces of the ridges by a fine cord of a darker brown, whilst the base, apex, and aperture, are either white, or delicately pink.

---

**Species 21.** (Mus. Cuming.)

*Ricinula chaidea*. Ricin. testá ovata, crassâ, ponderosa, spirá subacuminatâ, anfractibus tumidiusculis, obliquè concentricâ costatis, costis rudis, obtusâ tuberculatis, transversum sulcatâ; albâ aut lutescente, aperturâ albd.

**The consumed Ricinula.** Shell ovate, thick, ponderous, spire a little acuminated, whors rather swollen, obliquely concentrically ribbed, ribs rude, obtusely tuberculated, transversely grooved; whitish or yellowish, aperture white.


*Purpura nauostides*, Quoy and Gaimard.

**Hab.** Island of Masbate, Philippines (on the reefs at low water); Cuming.

A short stout ponderous shell, having very much the aspect of a *Nassa.*
RICINULA.

PLATE IV.

Species 22. (Mus. Cuming.)

RICINULA CARBONARIA. Ricin. testa ovata, utrinque attenuata, transversis striatâ, longitudinaliter fortiter costatâ, costis distintibus, lirvis transversis decussatis; nigerrima variâ, aperture saeva cornescentae-albâ.

THE COAL-BLACK RICINULA. Shell ovate, attenuated at both ends, transversely striated, longitudinally strongly ribbed, ribs distant, crossed with transverse ridges; variegated with jet black, interior of the aperture blueish-white.

Hab. — ?

Mainly distinguished by its gibbous growth, and the stout swollen character of the ribs.

Species 23. (Mus. Cuming.)

RICINULA ALVEOLATA. Ricin. testa fusiformi, longitudinaliter conspicue costatâ, costis subulis transversis decussatis; lutescente-albâ, costis rufo-fuscis pulcherriâtâ tessellatis.

THE CHECKERED RICINULA. Shell somewhat fusiform, longitudinally conspicuously ribbed, ribs crossed with transverse grooves; yellowish white, ribs beautifully tessellated with red-brown.

Purpura alveolata, Kiener, Icon. coq. viv. p. 42. pl. 9. f. 23.

Hab. Panama; Cuming.

The ribs of this pretty species have a kind of beaded appearance.

Species 24. (Mus. Cuming.)

RICINULA LACTA. Ricin. testa subfusiformi, medio gibbosinaeula, solidâ, longitudinaliter costatâ, costis subulis transversis decussatis; carnescentae-albâ, costis nigro minioque alternatâ rigidè pictis; columella labroque intus purpureo-rubis.

THE GAY RICINULA. Shell somewhat fusiform, rather gibbous in the middle, solid, longitudinally ribbed, ribs crossed with transverse grooves; blueish white, alternately brightly painted with black and vermilion, lip and columella purple-red.

Hab. — ?

The colouring of the ribs exhibits a striking contrast.

Species 25. (Mus. Cuming.)

RICINULA ELONGATA. Ricin. testa fusiformi, spirâ acuminatâ, anfractibus medio angulatis, longitudinaliter costatis, costis ad angulum nodosis, lirvis transversis decussatis, interstilis peculiariter cavernosis; extus intusque aurantiaco-luteis.

THE ELONGATED RICINULA. Shell fusiform, spine acuminate, whorls angulated in the middle, longitudinally ribbed, ribs nodose at the angle, crossed with transverse ridges, the interspaces being peculiarly cavernous; orange cream-colour within and without.

Purpura elongata, De Blainville, Hab. Island of Burias Philippines (under stones at low water); Cuming.

Characterized by the cavernous excavations between the ridges.

Species 26. (Mus. Cuming.)

RICINULA DEALBATA. Ricin. testa ovata, solidissima, transversis striatâ et seriatim tenerinodosi, striis incisis, subobscurâ punctatis; extus intusque alba.

THE BLEACHED RICINULA. Shell ovate, rather solid, transversely striated and finely noduled, strie engraved, somewhat obscurely punctured; white within and without.

Hab. — ?

Encircled with fine nodules and engraved strike in a manner somewhat peculiar.

Species 27. (Mus. Cuming.)

RICINULA ELATA. Ricin. testa ovata, crassâ, solidâ, longitudinaliter plicata-costatâ, costis subtus sordidis, tuberulis echinatis seriatim armatis, extus intusque alba.

THE ELEVATED RICINULA. Shell ovate, thick, solid longitudinally plicately ribbed, ribs somewhat obscure, armed with rows of prickly tubercules; white within and without.


Some of the prickly tubercules which characterize this species, have a faint indication of brown painting upon them.

October, 1486.
Species 28. (Mus. Cuming).

**Ricinula fiscellum.** Ricin. testá ovátá, spirá acutá, anfractitus superà subangulatis, ad angulam compressó nodosin, liris angustis minutis squamatis undique creberrimè cingulatis; albidá, liris purpureo-atris, columellá et apertura fáuce purpureo-violáceis.

The little basket Ricinula. Shell ovate, spire sharp, whorls somewhat angulated round the upper part, compressly nodulated at the angle, very closely encircled throughout with fine minutely scaled ridges; whthish, ridges purple-black, columella and interior of the aperture purple violet.


**Murex margariticoïda.** Broderip.

_Hab._ Australia and the Pacific Islands.

It will be seen on reference to genus _Murex_ of this work, that a most unhappy state of confusion has attended this species on the part of Mr. Broderip, Mr. Sowerby, and myself. Named _Murex margariticoïda_ by Mr. Broderip from the circumstance of Mr. Cuming having found it adhering to the Pearl Oyster (Conch. Icon. _Murex_ Sp. 178.), another shell was fixed upon by Mr. Sowerby, and adopted by myself, as representing the _M. fiscellum_ of Chemnitz (Conch. Icon. _Murex_ Sp. 124.). The former is however the true _M. fiscellum_, and the latter an extremely variable species, again described by me in a different state under the name of _M. decussatus_ (Conch. Icon. _Murex_ Sp. 153); though introduced by Mr. Sowerby also in different states under the names of _M. violacea_ and _Ricinulaoides_, which he afterwards cancelled.

It is determined beyond doubt that the _Murex margariticoïda_ of Broderip, of which the specimen here figured is a fine large tubercled variety, is the _Murex fiscellum_; it only remains to enquire of M. Kiener whether the shell mistaken for it, and which has received so many names in different states, is not the _Murex fimbriatus_ of Lamarck.

Species 29. (Mus. Cuming.)

**Ricinula forticostata.** Ricin. testá ovátá, medio gibbósá, longitudoalter conspicuous costate, costis fortibus, vald prominentibus, utris decussatis; albidá, costis fuscis liris decussantibus albidís.

The strong-ribbed Ricinula. Shell ovate, gibbous in the middle, longitudinally conspicuously ribbed ribs strong, very prominent, crossed with grooves whitish, ribs brown, the cross ridges white.

_Hab._ — ?

The prominent character of the ribs, coupled with their conspicuous style of painting, give an appearance to the shell which is very characteristic.

Species 30. (Mus. Cuming.)

**Ricinula astricta.** Ricin. testá ovátá, medio obesa, solidá, utrinque attenuate, longitudinaliter plicato-costatá; intersecat-albá, liris transversis angustis fascis undique peculiariter astricta.

The corded Ricinula. Shell ovate, stout in the middle, solid, attenuated at both ends, longitudinally plicated ribbed; yellowish-white peculiarly corded throughout with brown narrow transverse ridges.

_Hab._ — ?

Easily distinguished by the fine dark brown cord-like ridges with which it is encircled throughout.

Species 31. (Mus. Metcalfe.)

**Ricinula ochrostoma.** Ricin. testá ovátá, crassá, concentricè plicato-costatá, costis liris nodosis decussatis, interstítiis minutis squamatis; albá, apertura fáuce croceo-aurantí.

The yellow mouth Ricinula. Shell ovate, thick, concentrically plicated ribbed, ribs crossed with noduled ridges, the interstices between which are minutely scaled; white, interior of the aperture saffron-orange.

De Blainville, (fide Kiener). Icon. Coq. viv. p. 44. pl. 10. f. 29.

_Hab._ — ?

A solid sharply tubercled shell, having the areas between the ribs finely scaled.
RICINULA.

PLATE V.

(Specimens magnified to twice their natural length.)

Species 32. (Mus. Cuming.)

RICINULA CONTRACTA. Ricin. testá subfusiformi-ovatá, utrinque attenuatá, basi contractá, longitudinaliter obliquó plicato-costatá, transversió liratá et striatá; inter-fuscescente, aperture favee alba.

The contracted Ricinula. Shell fusiformly ovate, attenuated at both ends, contracted at the base, longitudinally obliquely plicated, transversely ridged and striated; yellowish brown, interior of the aperture white.

Hab. Panama, and St. Elena, West Columbia (under stones); Cuming.

Rather more than usually produced and contracted at the base.

Species 33. (Mus. Cuming.)

RICINULA ZONATA. Ricin. testá abbreviato-ovatá, solidá, utrinque longitudinaliter nodoso-plicatá; albá, zonis cornigro-nigris pulcherrimé cingulatá, columellá lacreque margini interno lacco-purpureis.

The zoned Ricinula. Shell shortly ovate, solid, attenuated at both ends, longitudinally nodosely plicated throughout; white, very prettily encircled with blue-black zones, columella and inner edge of the lip lake-purple.

Hab. Charles Island, Gallapagos (under stones at low water); Cuming.

Easily distinguished by the marked style of its painting.

Species 34. (Mus. Cuming.)

RICINULA OCELLATA. Ricin. testá ovatá, ventricosó, nudique subtilissimé cancellatá, asperitibus suprae angulatis, longitudinaliter costatis, basi fortibus, distantibus, compresso-tuberculatis; albá, lineis nigris, costas super ocellatis, cingulatá.

The ocellated Ricinula. Shell ovate, ventricose, very finely cancellated throughout; whorls angulated round the upper part, longitudinally ribbed, ribs strong, distant, compressly tubercled; whitish, encircled with black lines, which are ocellated on crossing the ribs.

Hab. ———?

The detail of sculpture and disposition of colour are extremely characteristic in this species.

Species 35. (Mus. Cuming.)

RICINULA CONCINNA. Ricin. testá subfusiformi-ovatá, basi contractá, spirá acuminatá; asperitibus concentricá plicato-costatá, costis tenuissimí nodiferís; alba, fasciis fuscis, nodis albis, conspicue cinctá, labiis laudo aurantioc-rufo.

The pretty Ricinula. Shell somewhat fusiform, ovate, contracted at the base, spire acuminate; whorls concentrically flatly ribbed, ribs very finely nodulated; white, conspicuously encircled with brown bands, in which the nodules are white, edge of the lip orange-red.

Hab. Cagayan, Island of Mindanao, Philippines (under stones at low water); Cuming.

Alternately encircled with brown and white bands, in the former of which the nodules are white, and have a very striking appearance.

Species 36. (Mus. Cuming.)

RICINULA HISTRIO. Ricin. testá ovatá, medio gibbosa et tuberculata, transversís subtilissimís striatá et obtuso-lírata; lineá, lineis refuscentibus, maculis nigris cingulatís et variegatís, columellá lacreque margini interno lacco-purpureis.

The harlequin Ricinula. Shell ovate, gibbous and tuberculated in the middle, transversely very finely striated and obtuse-ridged; yellowish, encircled and variegated with faint red lines and conspicuous black spots, columella and inner edge of the lip lake-purple.

Hab. Island of Burias, Philippines (under stones at low water); Cuming.

A stout hump-backed shell, strongly tuberculated, and strikingly variegated in colour.

Species 37. (Mus. Adamson.)

RICINULA IOSTOMA. Ricin. testá ovatá subobesa, longitudinaliter concentricá plicato-costatá, costis nodulis obtusius decussatis; albá, costisrn nodulis albris, columellá et aperture favee violaceis.

The violet-mouth Ricinula. Shell ovate, rather stout, longitudinally concentrically plicated ribbed, ribs crossed with obtuse nodules; whitish, nodules of the

September, 1846.
RICINULA.—Plate V.

Ribs jet black, columella and interior of the aperture violet.

_Hab._ — ?

Distinguished by its violet mouth and the concentric rows of black nodules.

_Species 38._ (Mus. Cuming).

**Ricinula cavernosa.** _Ricin. testá ovatá, gibbosá, costis fortibus longitudinalibus irisque compressis transversis conspicuo clythrátá, areis interstitialibus suberecavitá; albá, areis medianis rufo-fuscis, columellá et aperture fusc croceís.

The cavernous Ricinula. Shell ovate, gibbosus, conspicuously latticed with strong longitudinal ribs, and transverse ridges, interstitial areas rather excavated; white, the middle row of areas red-brown, columella and interior of the aperture saffron yellow.

_Hab._ Isle of Capul, Philippines (on the reefs at low water); Cuming.

A remarkable species very accurately represented on an enlarged scale in the accompanying plate.

_Species 39._ (Mus. Cuming).

**Ricinula muricata.** _Ricin. testá ovatá, spirá acutá, anfractibus superne concavo-depressis, infra conspicuo muricato-tuberculátis; inus extusque albá._

The prickly Ricinula. Shell ovate, spire sharp, whorls conceavely depressed round the upper part, conspicuously prickly tubercled beneath; white within and without.

_Hab._ — ?

Distinguished by its sharp prickly sculpture.

_Species 40._ (Mus. Cuming).

**Ricinula crocostoma.** _Ricin. testá subpyriform-ovatá, medio gibbosó, anfractibus superne depressis, longitudinaliter nodoso-costatis, costis subdistantibus, interstitialibus laticibus; intus extusque, costis nigerrima-fuscis, columellá labrique margine interno rufo-croceís.

The saffron-mouth Ricinula. Shell pyriformly ovate, gibbous in the middle, whorls depressed round the upper part, longitudinally nodosely ribbed, ribs rather distant, interstices smooth; yellowish, ribs very dark brown, columella and inner edge of the lip reddish saffron.

_Hab._ Isle of Capul, Philippines (on the reefs at low water); Cuming.

Very characteristic both in form and colouring.

_Species 41._ (Mus. Cuming).

**Ricinula trifasciata.** _Ricin. testá ovatá, crassá, solidá, spirá acutá; longitudinaliter nodoso-costatá, aperturá angustá; albá, fascis triúns cærulœ-æbris conspicuís circumdálatá; columellá labrique margine interno laco-purpureís.

The three-banded Ricinula. Shell ovate, thick, solid, spire sharp, longitudinally nodosely ribbed, aperture narrow; white, encircled with three conspicuous blue-black bands; columella and inner edge of the lip lake-purple.

_Hab._ Island of Bohol, Philippines (on stones at low water); Cuming.

Resembling the _R. zonata_ somewhat in its style of painting, but quite distinct on comparison.

_Species 42._ (Mus. Cuming).

**Ricinula turbinella.** _Ricin. testá ovatá, spirá acuminatá, transversis tumissimis striatá, et liratá, anfractibus superne declivibus, medio nodulosis; fusco-nigrante, nodorum serie medianá albá._

The little top Ricinula. Shell ovate, spire acuminate, transversely very finely striated and ridged, whorls sloping round the upper part, nodulous in the middle; brownish black, middle row of nodules white.


_Hab._ — ?

This appears to me to be identical with _M._ Kiener's _Purpura turbinella._
RICINULA.

Plate VI.

Species 43. (Mus. Cuming.)

RICINULA PARVA. Ricin. testa subpyramidali-ovata, liris nodulosis longitudinalibus et transversis decussatis, apertura parva; albida, nodularum seriebus alternatiam aurantioc-rufas et nigris.

The small RICINULA. Shell somewhat pyramidal ovate, crossed with nodulous longitudinal and transverse ridges, aperture small; whitish, rows of nodules alternately orange-red and black.

† Island of Luzon, Philippines (under stones at low water); Cuming.

The smallest of the group hitherto observed.

Species 44. (Mus. Cuming.)

RICINULA DEFORMIS. Ricin. testa ovata, basi attenuata, spirae peculiariter abbreviata, longitudinaliter plicata, transversis nodoso-lirata, labro incrassato; liris transversis interstitiis alternatiam refescence-luteis et fuscis.

The deformed RICINULA. Shell ovate, attenuated at the base, spire peculiarly shortened; longitudinally plicated, transversely nodously ridged, lip thickened; transverse ridges and interstices alternately reddish yellow and brown.

† Island of Masbate (in sandy mud at the depth of five fathoms); Cuming.

Somewhat akin in form to the R. deformis.

Species 45. (Mus. Cuming.)

RICINULA EXIMIA. Ricin. testa fusiformi, spirae acuminata; anfractibus rotundatis, concentricè tenuicostatis, liris subtilibus elegantius cancellati; latiscante-alba, liris inter costas seriationis fuscescentibus.

The delicate RICINULA. Shell fusiform, spire acuminated, whorls rounded, concentrically finely ribbed, elegantly cancelled with delicate ridges; yellowish white, ridges brown in zones between the ribs.

† Island of Corregidor, Bay of Manila (among coarse sand at the depth of six fathoms); Cuming.

A species of very elaborate sculpture.

Species 46. (Mus. Cuming.)

RICINULA ROSEA. Ricin. testa ovata, basi producta, spirae peculiariter abbreviata; anfractibus longitudinalibus nodoso-costatis, labro incrassato, apertura parva; rosea, fusco zonata.

THE ROSE RICINULA. Shell ovate, produced at the base, spire peculiarly shortened; whorls longitudinally nodously ribbed, lip thickened, aperture small; rose-colour, zoned with brown.

† Island of Masbate (in sandy mud at the depth of five fathoms); Cuming.

Species 47. (Mus. Cuming.)

RICINULA ARMILLATA. Ricin. testa pyramidali-ovata, spirae acutis acuminatis; anfractibus carinisd nivids nodoso supranè cingulatis, infra nodoso-costatis, interstices levibus; albida, nodis zonatis nigris et albias, carina nodis latiscantes.

The beaded RICINULA. Shell pyramidal ovate, spire sharply acuminated, whorls encircled round the upper part with a single nodulous keel, nodously ribbed beneath, interstices smooth; whitish, nodules alternately black and white in zones, nodules of the keel yellowish.

† Island of Ticao, Philippines (under stones at low water); Cuming.

A pretty beaded shell with rather a sombre arrangement of colours.

Species 48. (Mus. Cuming.)

RICINULA BICATENATA. Ricin. testa subtrigono-fusiformi, longitudinaliter costatæ, transversis tenuiscincæ lirata, liris duobus centralibus prominentioribus unitascentsquamatis; fusca, liris prominentibus centralibus albias.

The double-chained RICINULA. Shell somewhat triangularly fusiform, longitudinally ribbed, transversely very finely ridged, the two central ridges more prominent, prickly scaled; brown, the two central ridges white.

† Island of ——

Somewhat of a triangularly fusiform shape.

October, 1856.
Species 49. (Mus. Cuming.)

Ricinula rutilla. Ricin. testā ovātā, basi subproductā, spirē apice subōstāris; anfractibus rotundatis, concentricē nodosō-costātis; rufa nudique zonātā, nodis albis.

The red Ricinula. Shell ovate, a little produced at the base, apex of the spire rather obtuse; whorls rounded, concentrically nodosely ribbed; zoned throughout with red, nodules white.

Hab. — — ?

A prettily beaded shell.

Species 50. (Mus. Cuming.)

Ricinula ferruginoās. Ricin. testā subfusiform-ovātā, liris obtuso-nodulosis nudique clathratā; ferrugineo-fusco, zonis dnavus albidis inter nodulis cingulatā.

The rusty Ricinula. Shell somewhat fusiformly ovate, latticed throughout with obtusely noduled ridges; rusty-brown, encircled with two zones white between the nodules.

Hab. — — ?

Characterized by two narrow white zones, the nodules upon which are of the same dark rusty brown as the rest of the shell.

Species 51. (Mus. Cuming.)

Ricinula lineāta. Ricin. testā ovātā, obesā, solidā, longitudinaliter nodosō-plicatā; albā, lineis plumbo-nigris cingulatā.

The lineated Ricinula. Shell ovate, stout, solid, longitudinally nodosely plicated; white, encircled with lead-black lines.

Hab. Island of Ticao, Philippines (under stones at low water); Cuming.

Easily recognised by its style of painting.

Species 52. (Mus. Cuming.)

Ricinula acuminatā. Ricin. testā ovātā, spirā acuminatā; anfractibus longitudinaliter obsoletē plicato-costatīs, superno uniarvinatīs, infra tenailiratīs; intra-fuscescentē.

The acuminated Ricinula. Shell ovate, spire acuminated; whorls longitudinally obsoletely plicato-costate, with a single keel round the upper part, fine-ridged beneath; yellowish brown.

Hab. — — ?

A cross-beaded shell of an uniform yellowish brown colour.

Species 53. (Mus. Cuming.)

Ricinula recurvā. Ricin. testā abbreviato-ovātā, neo gibbosā, utrinque attenuatā, basi recurvā, anfractibus concentricē plicato-costatīs, costis latissimis, confert-supernē uniarvinatīs, infra tenabar liratīs; luteo-auratā, fusciā albidā medio cingulatā.

The recurved Ricinula. Shell shortly ovate, gibbern round the middle, attenuated at each end, recurved at the base; whorls concentrically plicately ribbed, ribs rather broad, close-set, a single keel round the upper part, finely ridged beneath; yellowish orange encircled round the middle with a white band.

Hab. Lord Hood's Island, Pacific Ocean; Cuming.

Species 54. (Mus. Cuming.)

Ricinula echinatā. Ricin. testā ovātā, utrinque attenuatā, longitudinaliter plicato-costatā transversim pectinatā; liris angustis tubulosis, costis superf. eburnīnē echinato-squamatis, lirarum interstitiis excisātis; albidā, punctis crocato-rufis seriātīs pictā.

The prickle-armed Ricinula. Shell ovate, attenuated at both ends, longitudinally plicately ribbed, transversely peculiarly ridged, ridges narrow, tubulose; beautifully prickly sealed upon the ribs, interstices between them excavated; whitish, painted with rows of faint saffron red dots.

Hab. — — ?

Of a character totally distinct from that of any species that have preceded it; the varieties of sculpture and arrangement of colour in the semi-Ricinuloid series of this genus are truly interesting.
**RICINULA.**

*Temporary Index.*

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MONOGRAPH

OF THE GENUS

MONOCEROS.

"Then were they known to men by various names."—Milton.
Genus Monoceros, Lamarck.

Testa ovata, spirata uncuta, uncuta subdepressa, in duris ultimis inflated, basis emarginata; columella ampla, depressa, interdum suboblonga plicata; lauro processus dentiformis, acutissimo, elongato, proppe basin arnato. Operculum corneum.

Shell ovate, spire sometimes elevated, sometimes a little depressed, last whorl inflated, emarginated at the base; columella large, rather depressed, sometimes indistinctly plaited, lip armed near the base with a very sharp elongated dentiform process or tooth.

The genus Monoceros of Lamarck, introduced almost simultaneously by De Montfort under the title of Unicornus, is characterized solely by the conspicuous tooth which becomes developed towards the base of the lip; the genus is not, however universally admitted, the animals of Monoceros and Purpura are the same, and there are many of the Purpura which exhibit indications of a tooth.

The species are very limited in number, and no additions have been made to the catalogue during the last few years.

Species 1. (Mus. Cuming.)


The onekeeled Monoceros. Shell ovately oblong, somewhat fusiform, whorls angulated round the upper part, rather obsoletely keeled at the angle, transversely impressly striated, interior of the aperture dejecticulated; ashy white, spaces between the strie articulated with brownish black, aperture whitish, sometimes faintly tinged with red.

Sowerby, Conch. Illns. Monoceros, fig. 5.
Purpura spicata, De Blainville.
Purpura elongata, Conrad.

Hab. Santa Barbara, California (under stones at low water); Nuttall.

This is unquestionably a true Monoceros; M. Kiener, who includes the species among his 'Pourpres buecinoides,' under De Blainville's name of P. spirata, has represented a specimen in an early stage of growth before the tooth is developed.

Species 2. (Mus. Cuming.)


The dotted Monoceros. Shell somewhat globose, thick, smooth, lip denticulated within; yellowish-white, encircled with three black-dotted bands, aperture faintly stained with red.

Gray, Zoology of Beechey's Voyage, p. 124.

Purpura lopatoides, Conrad.

Hab. Isle of Cocos, north-west coast of Mexico (on the rocks); Capt. Colnett. Santa Barbara; Nuttall.

This species, although found in the same locality with the preceding, is perfectly distinct, and may be recognized by its more solid globose structure and dotted bands.

Species 3. (Mus. Cuming.)


The gigantic Monoceros. Shell oblong fusiform, ventricose in the middle, attenuated at the base, smooth, transversely obsoletely ribbed, columella a little flattened towards the lower part, lip simple, entire; aperture large; pale yellowish brown, ribs darker, interior of the aperture yellow.


Monoceros Fusoides, King, Moll. Journ. (1830).

Hab. Conception, Chili (in rocky places at a depth of from three to five fathoms); King.

Very few examples of this fine species have yet been found in good condition; M. Lesson appears to have preceded Capt. King in the discovery of it by three or four years.

Species 4. (Mus. Cuming.)


September, 1846.
The short-toothed Monoceros. Shell ovate, thick, spire short, somewhat acuminated, transversely impressly striated, encircled with three obsolete noduled ribs; ashy blackish, encircled with white spots, aperture white.

Gray, Wood's Index Test. Supp. pl. 4. f. 10.

*Purpura cornigera*, De Blainville.
Testa junior, *Purpura ocellata*, Kiener.

*Hab.* Xipixapi and Moute Christi, West Columbia (in crevices of rocks at low water); Cuming.

The tooth, though perfectly developed, is rather minute in this species.
MONOCEROS.

Plate II."

Species 5. (Mus. Cuming.)

**Monoceros tuberculatum.** Mon. testá ovātā, basi umbilicata, spirā brevi, plus minusve crestā, anfractibus superne depressiusculis, transversim plicato-costatis, costis angustis tuberculatis, tuberculis compressis, superiōribus valde prominentioribus, costarum interstitiis sulcatās, aperture oblongā, fumce lineātā; lutescente-albā, apertūra carnea.

The tuberculated Monoceros. Shell ovate, umbilicated at the base, spire short, more or less exerted, whors narrow, tuberculated, tuberecle compressed, upper ones very prominent, interstices between the ribs grooved, aperture oblong, interior linedate; yellowish white, aperture flesh-tinted.

**Gray;** Sowerby, Conch. Illus. Monoceros, fig. 9.

_Hab._ St. Elena, West Columbia (in the crevices of rocks); Cuming.

Chiefly distinguished by the narrow compressed tubercled structure of the ribs.

Species 6. (Mus. Cuming.)

**Monoceros grande.** Mon. testá ovātā, cressā, spirā brevisculā, acutā, anfractibus superne concavīs, transversim costātis, costis grandibus peculiariter crebrisquamatis, squānatis utriāque depressorisforcicatis, subāe latioribus, interstitiis profunde excavatis, liris minutis squamātis ornavis, apertūra ovātā, fumce lineātā, labro laqueato, dente subelongato, conspicua; purpureo-fuscā, apertūra albā, colunmellā rufa lineātā.

The great Monoceros. Shell ovate, thick, spire rather short, sharp, whors concave round the upper part, transversely ribbed, ribs large, peculiarly closely sealed, scales depressely vaulted on either side, now and then wider, interstices deeply excavated, ornamented with minutely sealed ridges; aperture ovate, interior linedate, lip fluted, tooth rather elongated, conspicuous; purple brown, aperture white, colunmella tinged with red.


_Purpura Grayi,_ Kiener.

_Hab._ James Island, Gallapagos, (in the clefts of rocks at low water); Cuming.

M. Kiener appears to be unacquainted with the beauty and grandeur of this magnificent species, having questioned the propriety of Mr. Gray’s generic arrangement of it merely from the circumstance of his having no other than a young specimen, in which the tooth was scarcely developed.

Species 7. (Mus. Cuming.)

**Monoceros muricatum.** Mon. testa ovata, spirae peculiariter depressa-truncata, anfractibus superne planatis, transversim costatis, costis, quorum superioribus valde majoribus, tuberculatis et creberrique squamatis, costarum interstitiis sulcatis et squamatis; colunmellā planisculā; apertūra semi-ovātā, fumce lineātā; carneo-fuscā, colunmellā labroque rufescentibus.

The prickly Monoceros. Shell ovate, spire peculiarly depressely truncated, whors flattened round the upper part, transversely ribbed, ribs, the upper of which are much the largest, tuberculated and closely sealed, interstices between the ribs grooved and sealed; colunmella rather flattened; aperture semi-ovate, interior linedate; fleshy brown, lip and colunmella reddish.


_Purpura truncata,_ Duclos, _Magazín de Zool.,_ 1833, pl. 22. f. 2.

_Hab._ St. Elena, West Columbia (in the crevices of rocks); Cuming.

The _M. muricatum_ is chiefly distinguished from the _M. tuberculatum_ by its more depressed form, and by the peculiarly broad squamate structure of the ribs; there is a close affinity between them, but the series of each species in various stages of growth, in Mr. Cuming’s collection, sufficiently demonstrate the difference in their specific character. M. Duclos’ figure, like M. Kiener’s of the preceding species, is evidently drawn from an immature toothless specimen.

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September, 1846.
MONOCEROS.

Plate III.

Species 8. (Mus. Cuming.)

MONOCEROS PLUMBEUM. Mon. testá globoso-orátâ, erassâ, ponderóv, spirá brevisssimâ, acutá; anfractibus superne tünâdîs; columella arcuâtâ; basi macronátâ, superne mullâtâ, labro tensâ, simplex; dente porco basæm versus munîto; aurantio-lutâtâ, epidermide erassâ olivaceo-fuscâ intulâtâ.

The Leaden Monoceros. Shell globosely ovate, thick, ponderous, spire very short, sharp; whorls swollen round the upper part; columella arched, pointed at the base, callous at the top, lip thin, simple, furnished towards the base with a small tooth; orange-yellow, covered with a thick olive-brown epidermis.

Buccinum plumbeum, Chemnitz, Conch. Cab. vol. xi. p. 86, pl. 188, f. 1806, 1807.

This appears to be the most natural situation for this excavâ species; its generic character is far removed from the type of Buccinum.

Species 9. (Mus. Cuming.)

MONOCEROS LUGUBRE. Mon. testá ovâtâ, subcentrâvêtâ, anfractibus costis tribus vel quaternis radis cingulatis, costis hie illic tumidis, inciso-striatis, interstîtis lacunâs, aperturâ fânce denticulâtâ, deute marginali longissimo inceuro; fusâ, maculis flavâssimis nigra variegâtâ, colunellâ et aperturâ fânce purpureo-fuscâs.

The Mourning Monoceros. Shell ovate, somewhat ventriose, whorls encurved with three or four rude ribs, ribs swollen here and there, engraved with strie, interstices guttered, interior of the aperture dentilatâ, marginal tooth very long, curved inwards; brown, variegated with black blotches or flames, columella and interior of the aperture purple-brown.

Sowerby, Genera of Shells, Monoceros. f. 3.

Buccinum cymatum, Solander MSS.

Monoceros cymatum, Sowerby, Tankerville Catalogue.


Hab. California (on rocks); Belcher.

This species originally received the name of Buccinum cymatum from Dr. Solander, and the manuscript in which it occurs is accessible to all who desire to consult it among the records in the library of the British Museum; it cannot however, in justice to foreign authors, be regarded of any authority, and the word cymatum has never been published except in an equally inauthentic inventory of species in the Tankerville Catalogue. If Mr. Sowerby, to whom this confusion of names is incidentally due, had issued a description or figure of the species, under its original title, in his valuable appendix to that Catalogue, it would have been duly established; but, as this is not the case, the species becomes entitled to the new name of lugubre, somewhat indifferently introduced by the same author in his 'Genera of Shells.'

Species 10. (Mus. Cuming.)

MONOCEROS IMBRICATUM. Mon. testá ovâtâ, ventriose, liris subanguis radique cingulâtâ, liris interstitialis densissimâ imbricato-squamosâ, aperturâ dilatâtâ, deute longissimo, erecto; refiectente-fuscâ colunellâ et aperturâ fânce albis.

The Imbricated Monoceros. Shell ovate, ventriose, encurved throughout with rather narrow ridges, which, together with the interstices are very thickly imbricately scaled; aperture dilated, tooth very long, straight; reddish-brown, columella and interior of the aperture white.

Variety 3. (Fig. 10. b.)

Testa beavigata.

Shell smooth.

Lamarck, Anim. sans vert. (Deshayes' edit.), vol.x. p. 119.

Buccinum monodon, Chemnitz.

Buccinum monodon, Gmelin.

Rudolphi monodon, Schumacher.


Hab. Cape Horn.

It would scarcely be supposed that there are states of this species in which the imbricating scales almost wholly disappear; in the specimen represented at Fig. 10 b, there is only just sufficient indication of the squamate sculpture at the lip to identify it.

Species 11. (Mus. Cuming.)

MONOCEROS CINGULATUM. Mon. testá ovâtâ, spirâ subprominulâ, anfractibus superne conico-depressâ, liris...
MONOCEROS.—Plate III.

planis, subobsoletis, undique cingulatis, interstiiis striatis; liræ minutæ labrum versus medio decurrente, columellæ uniplicatæ, aperturâ brevissimâ, dente acuto, incurvo; intus extusque albâ, liris nigerrimo-fusciæ, epidermide luteo-fusciâ indutâ.

The girdled Monoceros. Shell ovate, spire rather prominent, whorls concavely depressed round the upper part, girdled throughout with rather obsolete flattened ridges, interstices striated, with a minute ridge running through the middle towards the lip; columella one-plaited; aperture rather short; tooth sharp, incurved; white within and without, ridges very dark brown, covered with a yellowish-brown epidermis.

Lamarck, Anim. sans vert. (Deshayes' edit.), vol. x. p. 118.
Turbinella cingulata, Kiener.
Buccinum pseudodon, Burrows.
Hab. Pauama (in clefts of rocks at low water); Cuming.

Quite inseparable from the present group, although distinguished, like Tubinella, by a winding plait upon the columella.

Species 12. (Mus. Cuming.)

Monoceros calcar. Mon. testâ suborbiculari-ovatâ, concavo-depressâ, spirâ brevissimâ, anfractibus ventricosis, liris interstiliisque densissimâ imbricato-squamati, aperturâ ampliiter dilatâ, dente longissimo, erecto; rufescente-fusciâ, columellâ et aperturâ fusci aútis.

The spur Monoceros. Shell somewhat orbicularly ovate, concavely depressed, spire rather narrow, ridges and interstices between them very thickly imbricately scaled, aperture largely dilated, tooth very long and erect; reddish brown, columella and interior of the aperture white.

Buccinum calcare, Martyn, Universal Conchology, vol. 2. pl. 50.
Monoceros breve, Sowerby.
Hab. Cape Horn.

This only differs from the M. imbricatum in respect of form; the sculpture is the same.
MONOCEROS.

Plate IV.

Species 13. (Mus. Cuming.)

MONOCEROS ACUMINATUM. Mon. testa oblongo-ovata, spirata peculiariter acuminata; spirale lirata, lirae paries, subdistantibus, lirae interstitiisque lenuisimae squamatis, squamis interdum in laminas continuiter decurrentibus; albidae, ferrugineo-fuscato variis, apertura alba, labri margine intus purpureo-fuscato.

The ACUMINATED MONOCEROS. Shell oblong-ovate, spire particularly acuminate, spirally ridged, ridges small, rather distant, ridges together with the interstices very finely scaled, the scales sometimes running down continuously in laminae; white, variegated with rusty brown, aperture white, edge of the lip tinged with purple-brown.

Sowerby, Conch. Illustrations, Monoceros, Fig. 10.

Hab. Valdivia, Chili (on rocks at low water); Cuming.

Approximating very closely in general character to the M. crassilabrum, but so widely removed from it in form, that it is impossible to be reconciled to the propriety of maintaining the M. calcare and imbricatum, as distinct species without adopting the distinction in the present case.

Species 14. (Fig. a, b, c, d, Mus. Cuming.)

MONOCEROS CRASSILABRUM. Mon. testa ovata, crassisimae, ponderosae, aut largae atque squamilatae; aperturae parae, labro valde plano-inconvexae, margine interno, obsolete denticulata, dente acuto, erecto; citrino vel rubente-fuscato, columna lacteis.

The THICK-LIP MONOCEROS. Shell ovate, very thick, ponderous, either smooth or sealy ridged; aperture small, lip very flatly thickened, inner edge obsoletely denticulated, tooth sharp, erect; citron yellow or reddish brown, lip and columnella milk-white.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 120

Fig. 14 c. Monoceros globulus, Sowerby.

Fig. 14 d. Monoceros citrinus, Sowerby.

Hab. Valparaiso, Chili (under stones at low water); Cuming.

Chiefly distinguished by its broad flattened lip.

Species 15. (Mus. Cuming.)

MONOCEROS GLABRATUM. Mon. testa oblongo-ovata, crassissimae, spirata subacuminata; anfractibus convexis, glabris, labro obliquo planato, dente acuto, erecto; rubente-fusco variis, labro et apertura fane albis.

The SMOOTH MONOCEROS. Shell oblong-ovate, rather thick, spire somewhat acuminate; whoris convex, smooth, lip obliquely flattened, tooth sharp, erect; variegated with reddish brown, lip and interior of the aperture white.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 120.

Hab. Island of Chiloe (on rocks at low water); Cuming.

Little more, apparently, than an acuminate growth of the preceding species.

September, 1846.
MONOGRAPH

OF THE GENUS

B U L L I A.

"Well hast thou taught the way that might direct
Our knowledge, and the scale of Nature set
From center to circumference."—Milton.
Genus Bullia, Gray.

The genus Bullia was founded by Mr. Gray for the purpose of distinguishing a very natural group of species, intermediate between Buccinum and Terebra, and of which the Buccinum larvissimum and Terebra citata of Lamarck, may be regarded as typifying a peculiarity of character fully borne out by a difference in the animal, which, according to the representations of MM. Quoy and Gaimard, is remarkably characterised by the wide expansion of its ventral disc.

Of the multiform genera enumerated by Mr. Gray in his 'Synopsis of the Collection of the British Museum', few are more deserving of attention than the present, introduced in his 'Zoology of Beechey's Voyage of the Blossom'; not only are the shells distinguished by a subulate turreted growth, different from that of any Terebra; and are for the most part of a curious callous formation, but they possess a vivid peculiarity of colouring and texture which assumes a certain degree of generic importance.

The species at present known are about two- or three-and twenty in number, several of which have been conferred together, for want of investigation, under similar names. They do not appear to be confined to any particular locality; in respect to their habits, the author notices that they "are found crawling on the sand in bays; they generally remain at the bottom of the water, and are easily caught alive with a bit of meat tied at the end of a string as they immediately attach themselves to it."

Species 1. (Mrs. Cuming.)

Bullia tenue. Bul. testa ovoidea, acutus turritae, basis versus ventricosa, spirea suturis subimpressis; anfractibus latissimis, supra sulcâ unica minutâ, infra sulcis subtilibus plurimis cingulatis, apertura latiuscula; sordida alba.

The thin Bullia. Shell rather thin, sharply turreted, ventricose towards the base, sutures of the spire rather impressed; whorls smooth, encircled with several fine grooves below and a single minute one above, aperture rather wide; dull white.

Gray, MSS., British Museum.

Hab. — ?

A thin delicate species, comparatively smooth, and white.

Species 2. (Mrs. Cuming.)

Bullia armata. Bul. testâ turritâ, spireâ suturis callosis; anfractibus superius angulato-decicivibus, nodis prominentibus submucronatis irregulatibus ad angulum aran- tia; colomellâ superius callosa; albidâ, fascis duabus refo vel caruleo-fascis latiusculis ornâtâ.

The armed Bullia. Shell turreted, sutures of the spire callous; whorls angularly slanting round the upper part, armed at the angle with irregular prominent pointed nodules; columella callous at the upper part; whitish, ornamented with two rather broad reddish or blueish-brown bands.

Gray, Zoology of Beechey's Voyage, p. 26

Buccinum moniliferum, Valenciennes.

Hab. — ?

Easily distinguished from any other species at present known, by the armature of elevated nodules with which the whorls are coronated.

Species 3. (Mrs. Cuming.)

Bullia gradata. Bul. testâ ovata, crassiuscula, spirâ crescent, suturâ callosis; anfractibus superius depressoplaneis, subgrandulâ rotundâtâ marginatis unique bevi- gatâ, colomellâ superius callosâ; pallide luteo-spadiaceâ, refo-fascis hie illic longitudinâter flavâtâ.

The step Bullia. Shell ovate, rather thick, spire ex- serted, sutures callous; whorls depressed flattened round the upper part, margined with a rounded ledge, smooth throughout; columella callous above; pale yellowish bay, longitudinally flame here and there with reddish-brown.


Hab. — ?

This shell was referred by Mr. Gray in his 'Zoology of December, 1846.
Bullia. — Plate I.

Beechey's Voyage', and by M. Kiener in his 'Iconographie', to the Buccinum cochliidenum of Chemnitz, until M. Deshayes, with his usual acumen, observed a marked dissimilarity between the shell here represented and the figure in the 'Conchyliden Cabinet'. Upon the discovery of this want of resemblance he introduced the species under consideration with the name here adopted, and I am happy to bear testimony to the value of his discrimination by publishing in Plate IV. a figure of the true Buccinum cochliidenum of Chemnitz, taken from a worn and rather mutilated specimen in the British Museum, the only one I have seen.

Fig. 4 proves to be merely a contracted belted growth of the B. levigata, Sp. 6. For Sp. 4 see Plate IV.

Species 6. (Mus. Cuming.)


The smooth Bullia. Shell ovately turreted, inflated towards the base, spire sharp, sutures callous, whorls smooth throughout, encircled round the upper part with a small rather obsolete groove; aperture rather large; purple-white, stained towards the apex with rusty brown, columella white, ornamented with a purple-brown blotch.

Gray, Zoology of Beechey's Voyage, p. 127.

Buccinum levigatum, Martini.

Buccinum levigatum, Gmelin, Lamarck.

Nassa levissima, Deshayes.

Hab. — ?

This species, as shown by the examples represented at Fig. 4 and 6, varies exceedingly in its growth, some specimens being very much contracted and belted, whilst in others the spire is sharply acuminated; a character, too, which appears to be worth noticing as of constant occurrence, is the purple brown blotch on the columella.
BULLIA.

Species 7. (Mus. Cuming.)

Bullia Grayi. Bul. testá ovato-turrítā, spirá peculiariter attenuátā, et acutá aciculátā; anfractibus levigátis, transversim superficialiter sulcatis, costis callosis planó spirali juxta suturam; livido-fuscescentes, costis spirali livido-albídī, colonellam albidâ, apertura fave rubiginosâ.

Gray’s Bullia. Shell ovately turreted, spire peculiarly attenuated and sharply aciculated; whors smooth, transversely superficially grooved, with a flattened callous spiral rib next the suture; livid brown, spiral rib livid-white, colonella white, interior of the aperture rust-brown.

Hab. — ?

There is a magnificent specimen of this sharply aciculated species in the British Museum, nearly twice the size of the one here figured, and which I regret not having observed until after the accompanying plate was engraved. I consider it distinct from the smaller B. Mauritiana, and dedicate it to the founder of the genus.

Species 8. (Mus. Cuming.)

Bullia Belangeri. Bul. testá turrítæ, spiræ suture subprofundâ, anfractibus levigatis, basi profunde sulcatâ, lividâ planâ superne juxta suturam cingulâta; aperturâ parviscintâ, pallidâ lividâ, lividus rugis exilibus undulâtis longitudinaliter baccâtâ.

Belanger’s Bullia. Shell turreted, sutures of the spire rather deep, whors smooth, deeply grooved at the base, encircled with a flattened ridge round the upper part next the suture; aperture rather small; pale livid colour, stained longitudinally with waved faint red lines.


Buccinum politum, Deshayes (not of Lamarck) in Belanger’s Voyage.

Hab. Ceylon.

This species which may be easily recognised by its undulating faint red lines, was figured by Martini, Conch. Cab. vol. iv. pl. 155. f. 1463; and is one of many instances of species published in that important work between sixty and seventy years since, which escaped the observation of Lamarck, and have since remained in obscurity.

December, 1846.

Species 9. (Mus. Cuming.)

Bullia vittata. Bul. testâ elongato-turrítâ, spiræ suture subprofunda, anfractibus levigatis ant concentricâ sulcatâ, superne juxta suturam tenueplicatis; albídâ, aperture fave cœrudâ.

The riband Bullia. Shell elongately turreted, sutures of the spire rather deep, whors smooth or concentrically striated, spirally delicately grooved, finely plaits round the upper part next the suture; whitish, interior of the aperture yellowish.


Terebra vittata, Lamarck.

Hab. Ceylon.

Two species appear to have been confounded under this lead by Linnaeus and subsequent authors; that which I retain to represent it, answers best with the Linnaean diagnose, and is the one figured in the ‘Encyclopédie Méthodique’, and by Kiener; the other species which follows under the name B. livida, is that figured by Martini and De Blainville.

Species 10. (Mus. Cuming.)


The livid Bullia. Shell elongately turreted, sutures of the spire impressed, whors smooth, polished, spirally obesolutely impressly striated, strongly crenulated plicated round the upper part next the suture, lip thickened, varicoso, aperture short; livid-blue, colonella white, interior of the aperture rust-brown.

Hab. Zanzibar.

This species may be readily distinguished from the former with which it has been hitherto confounded; the plicated crenulations round the summit of each whorl are much more strongly developed, whilst there are no concentric striae, the lip has a thickened varix, sometimes two or three upon it, the uniform livid colouring of the shell is characteristic, and it is from a very different locality.
BULLIA.—PLATE II.

Species 11. (Mus. Cuming.)

**BULLIA TAHEITENSIS.** Bul. testa turritá, anfractibus rotundatis, transversim planiliratis, liris confertissimis, duabus tribusque juncta suturam quam ceteris distantioribus, granosis, late viler excavatis; flavido-cineræ, aurantio-fusco hic illic punctátæ, aperture fuscæ rubiginosæ.

**The Taheite Bullia.** Shell turreted, whorls rounded, transversely flatly ridged, ridges very close-set, two or three next the suture more distant than the rest, granose, excavated at the sides; yellowish ash colour, dotted here and there with orange brown, interior of the aperture rust-brown.

Gray, MSS. British Museum.

Hab. Taheite.

The only species at present known in which the shell is disposed in spiral ridges.

Species 12. (Mus. Cuming.)

**BULLIA MAURITIANA.** Bul. testa subulato-ovata, spira suturis subimpressis; anfractibus loricatis, politis, sub-obsoletæ spiraliter impresso-striatis, liræ planæ callosæ juncta suturam; pallide lividæ.

**The Mauritius Bullia.** Shell subulately ovate, sutures of the spire somewhat impressed; whorls smooth, polished, rather obsoletely spirally impressly striated, with a flattened callous ridge next the suture; pale livid colour.

Gray, Zoology of Beechey's Voyage p. 126.

Hab. Madagascar.

Closely approximating to the *B. Grayi*, but is less ventricose towards the base, whilst the spire is less aciculated at the apex; it is also uniformly smaller, although the specimens represented in the accompanying plate do not exhibit that comparative difference of proportion.

Species 13. (Mus. Cuming.)

**BULLIA ANNULATA.** Bul. testa ovato-turritá, spira suturis callosis, anfractibus supra plano-depressis, anguli margine rotundato, annulato, infra creberrimè impresso-striatis; pallide luteo-spadiceë, columellæ alba.

**The Annulate Bullia.** Shell ovately turreted, sutures of the spire callous, whorls flatly depressed round the upper part, edge of the angle rounded, annulate, very closely impressly striated beneath; light yellowish bay, columella white.

**Buccinum annulatum**, Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 156.

**Nassa annulata**, Deshayes.

Hab. —?

This and the *B. gradata* and *cochlidium*, are the only species at present known in which the whorls are depressly flattened with a ledge round the summit.
For the Mus. columella lutea vel tuluha, the columella shell white or yellowish-white, and the columella of Bullia as Hab. The Truncata, of Bullia Sp. Of belonging. Fig. 17. dusted round the base; columella callous, pointed at the base; yellowish white, encircled round the middle with a row of ruddy square spots which are flame downwards. 

Hab. — ?

This species is strongly characterized by its spiral chain of longitudinally flame ruddy spots.

Species 19. (Fig. a, b and c. Mus. Cuming.)

Bulla semi-plaeta. Bul. testa ovato-turrita, spirá ovato-oblonga, subventricosa, spirá brevisculata, acuta; anfractibus longitudinaliter fortiter plicatis; costa callosa spirali subcommissa juxta sutura, anfracta ultimo levigata, plicis exannulis; columna callosa; albá as aut intusae, fasciis attributis, rectis aut violaceo-fusco interdors siliquata.

The half-plaited Bullia. Shell ovately turreted, spire sharply accented, whorls longitudinally strongly plaited, with a rather conspicuous spiral callous rib next the suture, last whorl smooth, the plait fading away; columella callous; whitish or yellowish, sometimes encircled with two reddish or violet-brown bands.


Hab. — ?

Distinguished by the strongly plaited growth of the first few whorls, and prominent spiral callous rib next the suture; the spire is also peculiarly accented.

Species 19. (Mus. Cuming.)

Bulla polita. Bul. testa ovato-turrita, levigata, ant stiris minuaturissime decussaté, basi sublaeta; columna calosa, basi uncertaina; intusae albae, uenois rubidi quadratis longitudinaliter flavosatibus medio cingulatá.

The polished Bullia. Shell ovately oblong, rather short, sharp; whorls smooth, vitreous, shining, faintly plaited at the apex; columella short, excavated, twisted at the base, interior of the aperture peculiarly wrinkled, lip thin, sharp; livid olive colour, encircled with an obscure blackish-brown band near the suture. 

BULLIA.—Plate III.

Nassa polita,, Deshayes.

Hab. — ?

One of the least acuminated of the genus, and presenting characters intermediate with those of Nassa.

Species 20. (Mus. Cuming.)

Bullia vitrea. Bul. testa ovato-oblonga, spiræ acuta, anfractibus tævigatis, nitidis, aut minutissimè concentricè striatis, ad apicem leviter plicatis; columella excavata, subconvexa, apertura fave crevis, labro tenui, acuto; livida-fuscæ, apicum versus rubiginosæ, longitudinaliter subtillisimè rufo-lineata.

The vitreous Bullia. Shell ovately oblong, spire sharp, whorls smooth, shining, or very minutely concentrically striated, slightly plaited at the apex; columella excavated, somewhat twisted, interior of the aperture smooth, lip thin, sharp; livid-brown or yellowish, rust-colour towards the apex, marked with very fine longitudinal red lines.

Hab. — ?

Very similar to the preceding, but certainly distinct.

Species 21. (Mus. Cuming.)

Bullia deformis. Bul. testa subquadrate-ovata, crassæ, ponderosœ, spiræ brevissimæ; anfractibus superne valde callosis, levibus, medio concavis; columella callosa, aperturæ parce, labro acuto; leucoscente, fasciæ violaceo-fuscæ obscuræ medio cingulata.

The deformed Bullia. Shell somewhat squarely ovate, thick, ponderous, spire very short; whorls very callous round the upper part, smooth, hollow round the middle; columella callous, aperture rather small, lip sharp; yellowish, encircled round the middle with an obscure violet brown band.


Hab. Rio de la Plata; King.

Remarkable on account of its short ponderous callous growth.
BULLIA.

PLATE IV.

Species 4. (Mus. Gray.)

BULLIA DIGITALE. Bul. testa acuminato-turrilá, base versus gradatim effusa, truncatá, spina suturis subcanaliculosis, lineae spiralis incisis; anfractibus levibus, ultimo sulco spiralis prope basem; ferrarigiae, columella albidá, aperture foveae purpureo-fuscescante.

THE FINGER-SHAPED BULLIA. Shell acuminately turreted, gradually effused towards the base, truncated, sutures of the spire rather callous and engraved with a spiral line; whorls smooth, last whorl with a spiral groove towards the base; rust colour, columna whitish, interior of the aperture purple-brown.

Buccinum achatinum, Lamarck.
Nassa achatina, Deshayes.
Bullia achatina, Gray.

Hab. — ?

We are indebted to the accuracy of Mr. Dillwyn for showing this to be the Buccinum digitale of Menschen, though it is probable one or two of its congeneres were confounded with it under the same title. The specific name attached to it by Lamarck is doubly inapplicable, on account of the term Buccinum achatinum having been already given by Muller and others to the type of his genus Achatina (A. perdix).

Species 14. (Brit. Mus.)

BULLIA SULCATA. Bul. testa acuminato-turrilá, basi sub-effusa, anfractibus concentricis eerebrinii undulato-sulcatis; ceruleo-plumbea.

THE GROOVED BULLIA. Shell acuminately turreted, somewhat effused at the base, whorls concentrically very closely undulately grooved; blueish lead colour.

Hab. — ?

A peculiarly dark blueish lead-coloured shell of rather solid structure, very closely concentrically grooved throughout.

Species 22. (Mus. Cuming.)

BULLIA SEMIUSTA. Bul. testa acuminato-turrilá, basi truncatá, levigatá, pulitra; anfractibus supra albidis, infra undulato-fuscesc, columella eburneá.

THE HALF-SCORCHED BULLIA. Shell acuminately turreted, truncated at the base, smooth, polished; whorls white above, burnt brown below, columna ivory-white.

Hab. — ?

Distinguished in form, as well as by its peculiar contras of colouring.

Species 23. (Mus. Brit.)

BULLIA COCHLIDIIUM. Bul. testa ovato-turrilá, tenunculá, anfractibus superirot rostrulatis et subcanaliculatis, levibus, columella arcuatá; purpureo-fusco tincta.

THE WINDING-STAIR BULLIA. Shell ovately turreted, rather thin, whorls rounded and somewhat channelled round the upper part, smooth; columna arched, pale fulvous yellow.


Hab. — ?

It may be observed that a considerable portion of the shell here represented is broken away, but I value it as enabling me to confirm the view taken by M. Deshayes, that the Buccinum cochlidium of Chemnitz, with whose figure this specimen accords, is specifically distinct from the Bullia gradata with which it has been hitherto confounded.

Species 24. (Mus. Gray.)

BULLIA CALLOSA. Bul. testa acuminatá, basem versus gibbosé et effusa, spina suturis subprofundis, anfractibus levibus, columella arcuatá, truncatá, callositate ampli mollitá; ceruleo-fuscescente, callositate eburneá, purpureo-fusco tincta.

THE CALLOUS BULLIA. Shell acuminated, gibbous and effused towards the base, sutures of the spire rather deep, more or less callous; whorls smooth, columna arched, truncated, furnished with a large callosity; blueish-brown.


Hab. — ?

Remarkable for the callous deposit of enamel which overspreads the columna and a considerable portion of the body-whorl.

February, 1847.
Species 25. (Mus. Gray.)

**Bullia rhodostoma.** Bul. acuminatâ, subventricosa, spîra suturis subprofundis, anfractibus levibus, fasciâ callosâ supra suturâs ornatis; lacteâ, aperture fave rufo-fusaê.

The red-mouth Bullia. Shell acuminated, somewhat ventricose, sutures of the spire rather deep, whorls smooth, ornamented above the sutures with a callous band; cream white, interior of the aperture reddish brown.

Gray, MSS. (private cabinet).

*Hab. — ?*

Of a peculiar cream colour and characterised by a band of enamel deposited above the sutural line.

---

Species 26. (Mus. Gray.)

**Bullia squalida.** Bul. testâ ovato-oblongâ, ventricosa, levi, basi subcontortâ et recurrâ, columellâ arceâti; fulco-fusce, columellâ et aperture fave aurantium-luteis.

The dirty Bullia. Shell ovately oblong, ventricose, smooth, somewhat twisted and recurved at the base, columella arched; fulvous brown, columella and interior of the aperture orange-yellow.


*Buccinum Paytense,* Valenciennes, Kiener.

*Hab. Payta.*

I have not seen any example of this species with the dark brown epidermis, represented by M. Kiener.
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MONOGRAPH

OF THE GENUS

BUCCINUM.

"Endued with various forms, various degrees
Of substance."—Milton,
Buccinum.

Plate I.

Genus Buccinum, Linnaeus.

Testa ovata vel fusiformi-oblonga, tenui enarginata, interdum subcanaliculata et plus minuscere recurva; columellæ plenamque levigata; apertura callostatæ ant dendriticis sepium aut superne unius; tubus tenuiculo, nunc simili, nunc crenelato.

Shell ovate or fusiformly oblong, base enarigitated, sometimes channelled and more or less recurved; columella generally smooth; aperture most frequently furnished with a callosity or denticles; lip rather thin, sometimes simple, sometimes crenulated.

The Latin word Buccinum, a trumpet, was applied indiscriminately by the ancients to any sort of spiral univalve shell; Linnaeus adopted the term in a more restricted sense, yet his genus of that name included a multitude of very anomalous character. Lamarck divided the Linnaean Buccinum into several excellent acknowledged genera, the chief portion of which constitute his family Purpurifera; and it has been considered necessary to institute a still further subdivision of those species distinguished by the titles Nassus, Bulbix, Cyllene and Phos.

The Buccinum undatum and its congeneres, though mainly retained as the typical series, are separated by M. Deshayes under the title of Tritonius, once assigned to them by Müller; they are mostly of northern origin, and it cannot be disputed that they present a particular uniformity of character, still there is a transition from this characteristic group to an extensive and varied series, mostly of smaller size, inhabiting the tropical regions, which are of more solid growth, of brighter colours, and of which the aperture is most distinctly distinguished by the presence of a callosity or denticles. With these I include Lamarck's Purpuraria sortans, Francolina and Ingeovaria, also Fusus articulatus of the same author, and numerous species distinguished as a new genus by Mr. Gray with the name of Pollia.

A number of interesting new species have now to be added, collected by Mr. Cuming at the Philippine Islands, exhibiting an extremely interesting variety of form colour and sculpture.

Species 1. (Fig. Kiener.)


The hairy Buccinum. Shell ovately conical, thin, ventricular, spire acute; whorls rounded, transversely very closely striated; columella short, a little twisted, aperture large; fleshy or ashy brown, obscurely banded, variegated longitudinally with brown flames.

Fabricius, O. Fauna Graenlandica p. 401.

Buccinum ventricosum, Kiener.

An Buccinum Harphrygianum? Bennett.

Hob. Newfoundland; Sowerby. Northern Seas; Kiener. Massachusetts, United States, (taken from fishes caught for the most part at the banks); Gould.

This species I regret to say I have not seen; there can however be no fear of mistaking it from the striking figure here copied from M. Kiener's (though probably a little exaggerated) and that of Dr. Gould in his invaluable Report of the Invertebrates of Massachusetts. Of the Buccinum Harphrygianum described by Mr. Bennett in the Zoological Journal, specimens are said to have been taken by some fishermen alive in Cork Harbour, perfectly identical with some received from Newfoundland by Mr. Sowerby.

Species 2. (Mus. Cuming.)

Buccinum Donovanu. Buc. testa ovato-conica, tenuiculæ, spiræa acutæ: astraclitus rotundatis, transversim lineatis et obscurè carinatis, epicum versus concentricis plicatis; columellæ brevi, apertura subquadrate-acutæ; albida aut fuscose, epidermise indutæ.

Donovan's Buccinum. Shell ovately conical, rather thin, spire sharp; whorls rounded, transversely linedate and obscurely ridged, concentrically plicated towards the apex; columella short, aperture somewhat square ovate; whitish or light brown, covered with an epidermis.

Gray, Zoology of Beechey's Voyage, p. 128.

Buccinum glaucum, Donovan.

Hob. Massachusetts, United States (inhabits the Bank fishing grounds); Gould.

The shell here represented, it will be observed, does not agree very accurately either with the figures of Donovan

December, 1846.
or Dr. Gould; still, I believe it to be the species, whose most constant character is retained in the short squarish effusion of the aperture; the thickness and plicated structure of this group varies, as will be noticed in the following species, according to circumstances of habitation.

Species 3. (Mus. Cuming,)

**Buccinum undatum.** *Buc. testa ovato-conicâ, spirâ sub-acuminâtâ, suturis profundiis; anfractibus rotundatis, transversim lineatis et tiratis, concentricâ plicatis, plicis e suturis descedentibus; albâ aut pallidê ferrugineâ epidermide serpissimâ indutâ.*

**The waved Buccinum.** Shell ovately conical, spire somewhat acuminate, sutures deep; whorls rounded, transversely lined and ridged, concentrically plicated, folds descending out of the sutures; whitish, or pale rusty colour, most frequently covered with an epidermis.


Varietates,

*Buccinum vulgare,* Da Costa.
*Buccinum striatum,* Pennant.
*Buccinum solutum.* Dillwyn.

*Hab.* Shores of Europe and the United States.

This well known species, the common Whelk of our market, varies in growth according to the situation it inhabits; in a rocky gravelly soil the shell is stout and strongly plicated, on mud and in a soft bottom it is thin, comparatively smooth and covered with a soft epidermis.

Species 4. (Mus. Brit.)

**Buccinum acuminatum.** *Buc. testâ conico-subulatâ, basi contractâ, anfractibus medio texter concurris, transversim regulariter tiratis, interstitiis subtilissimâ granoso-stratiatis; columna oviplicatâ, plieâ subamplâ; albâ, epidermide tenui partim indutâ.*

**The acuminate Buccinum.** Shell conically subulate, contracted at the base, whorls slightly concave in the middle, transversely regularly ridged, interstices very finely granosely striated; columnella one-plaited, plait rather large; white, partially covered with a thin epidermis.

Broderip, Zool. Journ. vol. v. p. 44. pl. 3. fig. 1 and 2.

*Hab.* Torquay, south coast of England.

This remarkable light *Teredo*-like species, of which there are in the British Museum two or three smaller specimens, was taken alive some twenty years since by a fisherman off Torquay, on the coast of Devonshire; the original proprietor of the shell, Lord Kilcoursie, being in the boat at the time. It is of light structure and of singularly acuminate growth, approaching very much in these respects to a specimen in the possession of John Bates, Esq., R.N., Sec. Royal Yacht Society, thought to be a variety of the *B. glaciate*, recently taken alive by a fisherman off Cowes in one of the basket-pots laid along shore in about two or three fathoms water for catching Whelks.

Species 5. (Mus. Brit.)

**Buccinum labradorensse.** *Buc. testâ conico-ovatâ, ventricosâ, tenaculâ, anfractibus rotundatis, transversim tenissimâ strictis, e suturis subobsoletâ plicatis; albâ, epidermide cornu partim indutâ, aperture fave pallidê croceâ.*

**The Labrador Buccinum.** Shell conically ovate, ventricose, rather thin, whorls rounded, transversely very finely striated, rather obsolescantly plicated from the sutures; white, partially covered with a horned epidermis, interior of the aperture pale saffron colour.

*Hab.* Labrador; Lady K. Douglas.

This species, of which there are four or five specimens in the British Museum, collected by Lady Katherine Douglas, appears to be quite distinct from any hitherto recorded.
BUCCINUM.

PLATE II.

Species 6. (Mus. Cuming.)

BUCCINUM SIGNUM. Buc. testa ovata, subcircularis, sub-Pyraulaformis, contorta, basi producta et obliqua recurvata; anfractibus transversis peculiariter minuissimis undulato-striatis, superne angulatis, ad angulum plicato-nodosis, nodis prominentibus; aperturâ amplâ; cingulâ, latero-fuscescente tinctâ, lineis castaneis substilatibus ciugulâtis.

THE FLAT BUCCINUM. Shell ovate, ventricose, somewhat Pyrula-shaped, contorted, produced and obliquely recurved at the base; whorls transversely peculiarly very minutely striated in a waved manner, angulated round the upper part, plicately noduled on the angle, nodules prominent, aperture large; ash-colour stained with yellowish brown, encircled with rather distant chestnut brown lines.

Hab. — ?

A remarkable shell having somewhat the aspect of the Purpura lineata, but of quite a different form; the general character of this species, and of those which accompany it in the present plate, has almost tempted me to introduce them in a new and separate genus.

Species 7. (Mus. Cuming.)

BUCCINUM TROCHUS. Buc. testa oblongo-ovâta, basi contorta, canaliculâtâ et recurvâ, spirâ oblongâ; anfractibus rotundatis, nudique crocérriâ angulârissimis, prope apicem nodosis; aperturâ oblongâ, fave irregulârâ et interruptrâ tinctâ; latero-spacido, lineis albis distilatibus ciugulâtis.

THE LITTLE TOP BUCCINUM. Shell oblong-ovate, twisted, channelled and recurved at the base, spire sharp; whorls rounded, very closely finely ridged throughout, noduled near the apex; aperture oblong, interior irregularly and intermittently ridged; yellowish bay colour, encircled with distant white lines.

Hab. — ?

Another characteristic species of rarity which does not appear to have been hitherto recorded.

Species 8. (Mus. Brit.)

BUCCINUM IMPERIALE. Buc. testa ovata, tenuiculâtâ, inflatâ; anfractibus transversis striatis et obscure

liratis, superne concavo-angulatis, ad angulum obtusâ carinâtis; aperturâ perviapâ; sordide albâtâ, aurantiaco-fusco, prope angulum, maculâtâ et punctatâ.

THE IMPERIAL BUCCINUM. Shell ovate, rather thin, inflated; whorls transversely striated and obscurly ridged, concavely angulated round the upper part, obtusely keeled at the angle; aperture very large; dull white, blotched and dotted, especially at the edge, with orange-brown.

Hab. — ?

A species of very peculiar form and colouring, unique, as far as I can ascertain, in our national collection.

Species 9. (Mus. Cuming.)

BUCCINUM FUSOIDES. Buc. testa fusiformis, basi coniculâtâ et recurvâ, transversis nudique liratis, liris augustissimis, confruticibus, interstribus longitudinaliter striatis; aperturâ oblongâ, fave lirâtâ; fucosescente, liris maculis parce saturati in profuso tinctis.

THE FUSUS-LIKE BUCCINUM. Shell fusiform, channelled and recurved at the base, transversely ridged throughout, ridges narrow, rather close-set, interstices longitudinally striated; aperture oblong, interior ridged; light brown, ridges profusely stained with small spots of a deeper colour.

Hab. — ?

If it were not that this species falls into the present series, distinguished by the recurvatur of the channelled base, it might be referred with propriety to the genus Fusus.

Species 10. (Mus. Cuming.)

BUCCINUM VARICOSEUM. Buc. testa subfusiformis-turrâtâ, basi conicalûtâ et recurvâ, spire subactis subimpressis, anfractibus subrotundatis, transversis conspicue elevato-striatis, longitudinaliter costatis, costis obtusis, subsitibus; aperturâ parâ; sordide fucosescente.

THE VARICOSE BUCCINUM. Shell somewhat fusiformly turreted, channelled and recurved at the base, sutures of the spire rather impressed; whorls nearly round, transversely conspicuously elevated striated, longitudinally ribbed, ribs obtuse, rather distant; aperture small; dull brown.

December, 1846.

Hab. — ?

The Murex varieosus of Chemnitz falls so peculiarly into this novel group of recurved-channelled Buccina, that I included it in the series, before noticing that M. Kiener had described it under the head of Fusus, and M. Deshayes observed that it has as much the appearance of Buccinum as of Fusus, ("coquille qui a autant l'apparence d'un Buccin que d'un Fusus"), and I incline to think the situation to which I have here assigned it is the more appropriate. Lamarck does not appear to have noticed the species.

Species 11. (Mus. Cuming.)

Buccinum Cassidariiforme. Bucc. testa ovata, subventricosa, basi canaliculata et recurvata; onfractibus transversis undique subirregulariter sutatis, superne decicibus et angulatis, ad angulum conspicu nodosis; aperture oblonga, face lirata; intus extusque fuscouteriant.

The Cassidaria-shaped Buccinum. Shell ovate, rather ventricose, channelled and recurved at the base; whorls transversely somewhat irregularly grooved throughout, sloping and angulated round the upper part, conspicuously nodose at the angle; aperture oblong, interior ridged; brownish-orange within and without.

Hab. — ?

None of the rare and interesting species of this plate from Mr. Cuming's cabinet and the British Museum were collected by him, nor does he possess any information as to their locality or circumstances of habitation.
BUCCINUM.

PLATE III.

Species 12. (Mus. Cuming.)

**BUCCINUM NASSOIDES.** *Bucc. testa pyramidalis-ovata, apice acuminatâ; anfractibus superne concavis, concentricis nodoso-placatis, transversis obsoletâ liratis et subtilissimâ striatis; anfractibus fuso-escente, nodulis lirisque albis.*

The **Nassa-like Buccinum.** Shell pyramidal ovate, acuminated at the apex; whorls concave round the upper part, concentrically nodosely plicated, transversely obsoletely ridged and very finely striated; orange-brown, nodules and ridges whitish.

*Hab. — ?*

Mr. Cuming possesses no information relative to this new and interesting species.

Species 13. (Mus. Cuming.)

**BUCCINUM SPIRALE.** *Bucc. testa ovata, spirâ acuminatâ, suturis profunda; anfractibus superne plano-angulatis, longitudinaliter obsoletâ tuberculato-placatis, transversis liratis; lirâs prominentibus, interstitialis excavatis et striatis; apertura fusa salutât et brevitur; albâ, fusco illic sparsim tinctâ.*

The **Spiral Buccinum.** Shell ovate, spire acuminated, sutures deep; whorls flatly angulated round, the upper part, longitudinally obsoletely tubercularly plicated, transversely ridged, ridges prominent, interspaces excavated and striated; interior of the aperture grooved and crenated; white, sparingly tinged here and there with brown.

*Pallin spiralis,* Gray, Zoology of Becchey's Voyage, p. 111.

*Hab. Mauritius.*

Though not uncommon I find no mention of this species, except in the work above quoted; some collectors possess it, named in manuscript *Bucc. fuscatum,* but it is obviously not the *B. fuscatum* of Bruguère.

Species 14. (Mus. Cuming.)

**BUCCINUM ERYTHROSTOMA.** *Bucc. testa ovata, spirâ acuminatâ, anfractibus concentricis tuberculatis, transversis subtiliter et crebrerius liratis; apertura fusa salutât et crenatâ; intersecula epidermd salutât et tuberculis nigricante-fuscas, apertura fusa alba, columellâ lirique limbo interno refuls.*

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The red-mouth Buccinum. Shell ovate, spire acuminated, whorls concentrically tuberculated, transversely finely and closely ridged; interior of the aperture grooved and crenated; yellowish, covered with a silken epidermis, tubercles blackish brown, interior of the aperture white, columella and inner margin of the lip red.

*Hab. Ceylon.*

Easily distinguished by the characteristic blood red colouring of the mouth.

Species 15. (Mus. Cuming.)

**BUCCINUM MELANOSTOMA.** *Bucc. testa oblongo-ovata, subventricosa, anfractibus superne rotundato-ovalis, suturis profunda; longitudinaliter plicato-undatis, transversis irregulariter liratis et striatis, aperture ovata, fusa salutât et crenatâ; anfractibus fuso-coriolis, nodulis liris concentrate-fuscas, aperture fusa alba.*

The **Black-mouth Buccinum.** Shell oblong-ovate, somewhat ventricose, whorls rotundately angled round the upper part, sutures deep, longitudinally plicately waved, transversely irregularly ridged and striated, aperture ovate, interior grooved and crenated; orange brown, stained here and there with spots of a darker brown, columella blackish brown, interior of the aperture white.

*Sowerby, Tankerville Catalogue, Appendix, p. 21.

*Hab. Ceylon.*

M. Deshayes arranges this species together with the *B. sepienensis and plumbum* (*Monoceros plumbens,* mihi), in a separate section, under the title of "Les Monodontes"; I do not, however, see that it has any such affinity with them. It may be easily distinguished from the *B. Tranquebaricum* with which species M. Kiener has confounded it, under an impression that they are the same in different ages.

Species 16. (Mus. Cuming.)

**BUCCINUM MACULATUM.** *Bucc. testa gibboso-ovata, spirâ breviusculata, anfractibus superne leviter concavis, medio turgidis, levibus, ad apicem tuberculato-nodosis; columellâ ericata, superne callosâ et conallicatâ, basi amplius exarquâ; griseo-fuscâ, tenuis fusco-articulatis undique cingula.*

*Hab. Ceylon.*

This is the very species of that described by M. Deshayes in his recent work, "Les Monodontes," and which he figures; and it is the subject of the description already quoted, and given as an illustration.

December, 1846.
**BUCCINUM.—PLATE III.**

**The spotted Buccinum.** Shell gibbously ovate, spire rather short, whorls slightly concave at the upper part, swollen at the apex; columella excavated, callosus and channelled at the upper part, base largely emarginated; greyish yellow, encircled throughout with brown-articulated fillets.

Martyn, Universal Conchology, vol. ii. pl. 49.

*Buccinum adspernum*, Chemnitz.
*Buccinum turgidum*, Dillwyn.
*Buccinum testudineum*, var. Kiener.

**Hab.** New Zealand.

I quite agree with M. Deshayes in the propriety of distinguishing this from the *B. testudineum*, independent of the specific difference which he notices in the animal.

---

**Species 17.** (Mus. Cuming.)

**Buccinum Tranquebaricum.** *Buc. testā subulato-oratā, suturis profundis, anfractibus subplanitis longitudinalibus fortiter plicato-costatis, transversībus multīque liratis; apertūrat fave sulcata et crenāta; flavescente, zona angustā alba interdum cingulātā, liris refescentiibus, colunmellā et apertūrāe fave alībus.

**The Tranquebar Buccinum.** Shell ovate, somewhat ventricose, whorls rotundately angled round the upper part, longitudinally strongly plicately ribbed, transversely ridged throughout; interior of the aperture ridged and crenated; pale bright yellow, sometimes encircled with a narrow white zone, ridges reddish, columella and interior of the aperture white.

Nassa Tranquebarica Martini, Conch. Cab. vol. 4 p. 35 pl. 123. f. 1146, 7.

**Hab.** Tranquebar.

Not often so brightly coloured as the specimen here figured, which is moreover distinguished by a central white band.

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**Species 18.** (Mus. Cuming.)

**Buccinum glaciale.** *Buc. testā subulato-oratā, spire suturis profundis, anfractibus subplanitis longitudinalibus oblique plicatis, transversis bi-tri-cordatis, carināris interstitiis regulariter elevato-striatis; apertūrā brevi, labro conspicuō effuso; sordide flavido-fusco, labro albi.

**The icy Buccinum.** Shell subulately ovate, sutures of the spire deep, whorls somewhat flattened, longitudinally obliquely plicated, transversely two-three-keeled, interstices between the keels regularly elevated and striated; aperture short, lip conspicuously effused; dull yellowish brown, lip white.


Tritonium glaciale, Muller.


**Hab.** Northern Seas.

I have not seen the fractured specimen from Icy Cape described by Mr. Gray under the above mentioned name, but fear nevertheless it is a variety of the present species.
Species 19. (Mus. Cuming.)

**Buccinum modestum.** Bucc. testá acuto-fusiformi, basi salutá, supra salubíter striatá; aperture oblongá, labro incrustáto, margínato; albidís; labia aut intus versus, raro excratá; costam incrútás, in striís fússas sunturá dispostas, anfractus ultimo zoná angustá albidá vingulatá.

The modest Buccinum. Shell ovately fusiform, grooved at the base, finely striated above; aperture oblong, lip thickened, margined; whitish or yellowish, stained with reddish chestnut, arranged in streaks next the sutures, last whorl encircled by a narrow white zone.


**Buccinum costatum.** Bucc. testá pyramidalis-ovata, anfractibus transversis nodulóris, salutá, superne concavo-angulatá, ad angulum nodosis, infra obsoleté plicato-costatá; columella excrátá, aperture fácie incrútátá; albidís, labia visi, arcis inter salus transversós raso-fusco articulatás, columnánæ aurantiác-fusco, aperture fáce albí.

The ribbed Buccinum. Shell pyramidal ovate, whors transversely very closely grooved throughout, conically angled round the upper part, nodose at the angle, obsoletely plicated ribbed beneath, columella excavated, callous and channelled at the upper part, interior of the aperture ridged: whitish or ash colour, areas between the transverse rows articulated with reddish brown, columnella orange-brown, interior of the aperture white.


Hab. South Australia.

The name selected for this species is a very inappropriate one, there being little or no appearance of ribs.

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Species 21. (Mus. Cuming.)

**Buccinum acutinodosum.** Bucc. testá ovata, spirá brevissimá, turritá, anfractibus superne angulatá, ad angulum acutum nodosis, transversis nodulóris, salutá; columellae excrátæ. Superne angulatá, superne ovato-fusico, aperture fáce parvo-angulata.

The sharply noduled Buccinum. Shell ovate, spire rather short, turreted, whors angulated round the upper part, sharply noduled at the angle, transversely very closely grooved throughout; columella excavated and channelled at the upper part; ashy or blueish white, areas between the transverse grooves articulated with blackish brown, interior of the aperture purple-black.

Hab. South Australia.

Closely approximating to the preceding species and from the same locality; its more gibbous and shortened growth cannot be estimated of any specific importance, but the columella is rather different, and the interior of the aperture deep purple-black. Mr. Cuming possesses specimens of each without any intermediate modification of these characters.

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Species 22. (Mus. Cuming.)

**Buccinum forcatum.** Bucc. testá oblongo-spirá, anfractibus superne concavis, liris plano-conceixis, subdistantibus regulariter cicatris, lirá rotundá interdubia, superfíce castamenibus; columná superne lirá castamenibus, suprâ ovatá-cinctis, labia visi, simplicá; ferrugineo-fusco, liris saturátioribus, columná albí, aperture fáce castamen iba incrútátá.

The ridged Buccinum. Shell ovately oblong, whors concave round the upper part, regularly encircled with rather distant flat convex ridges, interspaces between the ridges finely striated; columella furnished at the upper part with a callous ridge, channelled above; lip thin, simple; rusty brown, ridges darker, columnella white, interior of the aperture tinged with flesh-colour.


**Buccinum aspersius striata,** &c., Martini.

**Buccinum Mexicanaum,** Bruguière.

**Purpura ligata,** Lamarck.

**Buccinum ligatum, Kiener.**

Hab. —?

I refer this species to the Purpura ligata of Lamarck solely on the authority of M. Kiener.

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Species 23. (Mus. Cuming.)

**Buccinum Anglicanum.** Bucc. testá oblongo-spirá, lenticulá, anfractibus superne leviter concavis, liris parvis con- fortiscuis striisque cicatris, columná superne lirá castamenibus, supra ovatá-cinctis; labia visi, semplicí; ferrugineo-fusco, columná et aperture fáce albídis.

The English Buccinum. Shell oblong, rather thin, whors slightly concave round the upper part, encircled with close-set small ridges and striae, columella furnished at the upper part with a callous ridge,
channelled above; lip simple; rusty brown, columnella and interior of the aperture whitish.


Buccinum norvegicum, Enc. Méth.


Very like the preceding species, differing only in having the ridges more frequent and less strongly developed, and the whorls less elevated one upon each other at the sutures.

Species 24. (Mus. Cuming.)

Buccinum papyraceum. Buc. testa ovata, subvitriniformis, tenui, anfractibus transversis tenuissimis striatis; columnellae subexcavata, liræ callosæ superficiali natis, superà canaliculari; ferrugineo-fusca, columnellæ et aperture fauce sanguineae.

The papyraceous Buccinum. Shell ovate, somewhat fusiform, thin, whorls transversely very finely striated; columnella somewhat excavated, furnished at the upper part with a callosous ridge, channelled above; light rusty brown, columnella and interior of the aperture white.


Hab. ?

So closely do this and the two preceding species approximate to one another, that they may prove to be nothing more than different states of the same.

Species 25. (Mus. Cuming.)

Buccinum ovum. Buc. testa ovata, spiræ breviscinatæ, anfractibus rotundatis, ventricosis, levigatis, labro tenui; columnellæ labro tenui liræ intus indutæ.

The egg Buccinum. Shell ovate, spire rather short, whorls round, ventricose, smooth, lip thin; ivory white, covered with a thin yellowish epidermis.


An Buccinum fusiforme, Kiener (not of Broderip)?

Hab. Britain.

I have no shell that comes so near to Mr. Kiener's figure, B. fusiforme, as the present; it is of rather a more elongated form, and if on comparison it should prove distinct must be re-named.

Species 26. (Mus. Cuming.)

Buccinum tenerrum. Buc. testa tenui, subinflata, spiræ mediocri, ad apex fere subcirculari; anfractibus rotundatis, superà velutina depressa, spirali liræ tenuissimis, labro subosce et obsoleti, labro acuto; interior extusque velloso-ant liride-fusca, columnellæ super nevrigente.

The dark Buccinum. Shell thin, somewhat inflated, spire middling, slightly plaited at the apex, whors round or a little depressed round the upper part, spirally indistinctly keeled, keels almost obsolete, lip sharp; violet or livid brown within and without, columnella blackish above.


Hab. West coast of Davis's Strait, between Greenland and North America (dredged from a blue clay bottom at a depth of from fifteen to twenty fathoms); Warham and Harrison.

An interesting species of which there are several examples in Mr. Cuming's collection, described almost simultaneously with the present by Mr. Hancock, one of the accomplished authors of the 'British Nudibranchiate Mollusca' issuing under the auspices of the Ray Society. The new species of shells just described in the Magazine above quoted, were dredged in a deep bay on the west coast of Davis's Strait, through the zeal of Messrs. Warham and Harrison, masters of whaling vessels belonging to the port of Newcastle-on-Tyne.

Species 27. (Mus. Cuming.)

Buccinum tenuis. Buc. testa fusiformi-ovata, tenui, spiræ subvitrina, anfractibus subrotundatis, levigatis, labro tenui; columnellæ labro intus intus intus indutæ.

The thin Buccinum. Shell fusiformly ovate, thin, spire rather acuminate; whors somewhat round, smooth, or very minutely spirally striated, concentrically pliately ribbed, lip thin; dead white.

Gray, Zool. of Beechey's Voyage, p. 128. pl. 36. f. 19.

Hab. Icy Cape.

Well characterized by its concentric scalariform ribs.

Species 28. (Mus. Cuming.)

Buccinum zeelandicum. Buc. testa conico-ovata, subventricosa, anfractibus spirali liræ tenuissimis, labro semipliato, columna scuta subosce et obsoleti, labro tenui; columnellæ labro intus intus intus intus intus indutæ.

The New Zealand Buccinum. Shell conically ovate, somewhat ventricose, whors spirally striated concentrically, strongly half-pleated from the sutures, lip rather thickened, whitish or yellowish, filleted between the folds with transversely oblong red spots, interior of the aperture orange-yellow.

Hab. New Zealand.

The rows of oblong red spots which encircle the upper portion of the whors in the interstices between the folds, constitute a character by which this species may be easily recognised.
BUCCINUM.

Plate V.

Species 29. (Mus. Brit.)

BUCCINUM CILIATUM. Buc. testà ovatå, spirà brevi, anfractibus rotundatis, transversim subtillisimé striatis, concentriciè e anturis fortiter plicato-costatis; intus exusque albè.

THE CILIATED BUCCINUM. Shell ovate, spire short, whorls rounded, transversely very finely striated, concentrically strongly plicately ribbed from the sutures; white within and without.

MOLLER, Index Moll. Grønl.

Hab. Greenland.

A small ovate white shell very strongly concentrically plicately ribbed.

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Species 30. (Mus. Cuming.)

BUCCINUM ANTARCTICUM. Buc. testà ovato-fusiformi, basi truncati, anfractibus apicem versus fortiter plicato-costatis, costis anfractuès ultimis ecaudis; extus epidermide crassò atque limo-natâ, intus purpureo-fuséd, colurllæ labriqne marginè interno albi.

The Antarctic Buccinum. Shell ovately fusiform, truncated at the base, whorls strongly plicately ribbed towards the apex, ribs of the last whorl fading away; exterior covered with a thick olive epidermis, interior purple-brown, columella and inner edge of the lip white.

Hab. Falkland Islands; Ross.

The few species brought home by the Antarctic Expedition of H.M. Ships 'Essex' and 'Terror,' under the command of Captain Sir James Clarke Ross.

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Species 31. (Mus. Brit.)

BUCCINUM FUSIFORME. Buc. testà ovato-fusiformi, spirà acumina-tâ, anfractibus transversis creberrimè liratis et concentriciè costatis, costis subgrynosis; alba, epidermide fusco-caste indatâ.

The fusiform Buccinum. Shell fusiform, spire acuminated, whorls transversely very closely ridged and concentrically ribbed, ribs subgranose; white, covered by a brownish epidermis.


Hab. Cork, Ireland.

Partaking very much of the character of Fusus.

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Species 32. (Mus. Cuming.)

BUCCINUM INTINCTUM. Buc. testà oblongo-ovatå, ten- ninculà anfractibus superius leviter depressis, transversim undique creberrimè striatis, columellà loci, callositate superius minus è, aperture funce radiatim subtiliter liratâ; castaneo-rufâ epidermide tenui indatâ, intus alba.

The dyed Buccinum. Shell oblong-ovate, rather thin, whorls slightly depressed round the upper part, transversely very closely striated throughout, columella smooth, furnished with a callosity at the upper part, interior of the aperture radiately finely ridged; chestnut red, covered with a thin epidermis, interior white.

Hab. — ?

This species has, I fear, been confounded with the B. papyraceum, from which it is constantly distinguished by its more elongated form and deep red colour.

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Species 33. (Fig. 33 and 34. Mus. Cuming.)

BUCCINUM LAGENARIUM. Buc. testà ovatå, transversim tenueissimè striatis, anfractibus superius compresso-plantatis et lacernatis; intescente, lineolis striisque spadiceo-fusèis longitudinatim nudulatis varè pictâ.

The calabash-shaped Buccinum. Shell ovate, transversely very finely striated, whorls compressly flattened and guttered round the upper part; yellowish, variously painted with longitudinally waved brown lines and streaks.

Variety B. (Fig. 33 and 34.)

Testa obsolete plani-lirata, libræ maculis quadratis auranti- fuscâ articulatis.

Shell obsoletely flatly ridged, ridges articulated with square orange-brown spots.


Purpura legenaria, Lamarck.

Variety a. Purpura cucurbita, Duclos.

Variety B. an Purpura zebra? Kiener.

Hab. Cape of Good Hope.

By some unfortunate mistake two examples of Var. B have been figured in place of one of each variety; Var. a has been, however, well represented by M. Duclos in the 'Magasin de Zoologie' for 1833, and it is a shell of very common occurrence.

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December, 1846.
Species 35. (Mus. Brit.)

**Buccinum limbosum.** *Buc. testá conico-ovatá, anfractibus supernè concavo-depressis, transversis subtilissimis et creberrimè striatis, aperture fave radiatim tenuillató; purpureo-nigricante, columnellá et aperture fave albis, fuscopurpuro tinctis.*

**The collared Buccinum.** Shell conically ovate, whors conceavely depressed round the upper part, transversely very finely and closely striated, interior of the aperture radiately finely ridged; purple-black, columnella and interior of the aperture white, tinged with brownish purple.

*Purpura limbos, Lamark, Anim. sans vert. (Deshayes’ edit.) vol. x. p. 78.*

*Hab. — ?*

A species not often met with, of which there are two or three fine examples in the British Museum; it was only known to Lamarck in a young state.

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Species 36. (Mus. Cuming.)

**Buccinum lineolatum.** *Buc. testá conico-ovatá, spirá elevatim cincta, levigata; griseo-fuscescente lineis nigris equatibus unum interruptis, unum integris, cingulataé, apertura fave cernecente, columnellá labrique margine interno rufo-aurantiis.*

**The lineated Buccinum.** Shell conically ovate, spire rather elevated, smooth; greyish brown, encircled with equal black lines sometimes interrupted, sometimes entire, interior of the aperture bluish, columnella and inner edge of the lip stained with orange.

*Lamarck, Anim. sans vert. (Deshayes’ edit.) p. 164. and p. 186.*

*Hab. New Zealand.*

M. Deshayes has published this as a new species of *M. Quoy,* without observing it to have been already described by Lamarck under the same name; should *M. Quoy’s entire-lined* shell prove eventually to be distinct from the *interrupted-lined* species of Lamarck (figured by M. Kiener at pl. 8. f. 25. as a variety of *B. maculatum*), I may here suggest that it be named *Buccinum Quoyi,* in honour of the indefatigable naturalist of the ‘Astrolabe.’

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Species 37. (Mus. Cuming.)

**Buccinum alveolatum.** *Buc. testá conico-ovatá, spirá elevatim cincta, levigata; griseo-ant carulescente-aliida, musculis verulceo-nigris transversè oblongis creberrimè seriatim cincta.*

**The tessellated Buccinum.** Shell conically ovate, spire rather elevated, smooth; greyish or bluish white, closely encircled with transversely oblong blue-black spots.

*Kiener, Icon. coq. viv. p. 32. pl. x. f. 34.*

*Hab. New Holland.*

This is little more than a variety of the interrupted-lined *B. lineolatum,* in which the lines assume the width of interrupted bands; an argument however in favour of its being regarded as a species, is, that it never occurs with entire bands.

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Species 38. (Mus. Brit.)

**Buccinum plurianulata.** *Buc. testá conico-ovatá, an-fracitibus supernè concavo-depressis, levigatis, apertura fave subtilierirritatá; griseo-albida, lineis nigris nudiæ creberrimè cingulatâ, apertura fave nigricante, labris margine interno albicante.*

**The many-ringed Buccinum.** Shell conically ovate, whors conceavely depressed round the upper part, smooth, interior of the aperture finely ridged; greyish-white, very closely encircled throughout with black lines, interior of the aperture blackish, inner edge of the lip whitish.

*Hab. Swan River.*

Perfectly distinguished from the *B. lineolatum* both in form and colouring.
**Buccinum.**

**Plate VI.**

Species 39. (Mus. Cuming.)

*Buccinum pristis.* Bre. testâ elongato-turrítâ, acuminâtâ, basi subcontresta; anfractibus superne declivius, apicem versus subabsolutâ plicatis et striatis, ceteris laevibus, politis; aperturâ brevi, labri tibiâ pulcherrimâ et conspicù serrato; intus extusque liceido-aliceâ.

**The elongated Buccinum.** Shell elongately turreted, acuminate, somewhat twisted at the base; whorls depressively slanting round the upper part, somewhat obsolescently plicated and striated, the rest smooth, polished; aperture short, edge of the lip very beautifully and conspicuously serrated; livid olive within and without.


*Buccinum serratum* Dufresne.

*Hab.* St. Elena, West Columbia.

The name *pristis* has been given to this singular species by M. Deshayes in consequence of that of *serratum* introduced by Dufresne being pre-occupied in reference to a fossil species; it was originally dedicated by Mr. Gray in manuscript to Lady North, *Buccinum Northiei*, but I cannot learn that this name ever reached publicity.

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Species 40. (Mus. Cuming.)

*Buccinum situla.* Bre. testâ oblongo-ovalâ, spirâ brevi, anfractu ultimo amplo, inflato; laevigâtâ aut obscure rotâ elevato-striatâ; aperturâ amplâ, callositatibus dubius superne manuitâ, labro simplici; fulvo-rubido, maculis violascentes-albis serialia aspersâ, apertura favea reflexae-aurantiâ.

**The little water-scoop Buccinum.** Shell oblong-ovate, spire short, last whorl large, inflated, smooth or very obscurely elevately striated; aperture large, furnished at the upper part with two callositites, lip simple; fulvous red, sprinkled with rows of violet-white blotches, interior of the aperture reddish-orange.

*Hab.* Isle of Annua, Pacific Ocean (on the reefs at low water); Cuming.

An interesting new species abundantly distinguished from the two which follow by its shorter and more inflated growth, smooth surface and peculiar style of painting.

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Species 41. (Mus. Cuming.)

*Buccinum Francolinus.* Bre. testâ ovato-oblongâ, crus-

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Species 42. (Mus. Cuming.)

*Buccinum serratum* Dufresne.

*Hab.* St. Elena, West Columbia.

This may easily be distinguished from the foregoing and following species, by its minutely cancelled sculpture and delicate tone of colouring.

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Species 42. (Mus. Cuming.)

*Buccinum francolinus* Dufresne.

*Hab.* Isle of Annua, Pacific Ocean (on the reefs at low water); Cuming.

An interesting new species abundantly distinguished from the two which follow by its shorter and more inflated growth, smooth surface and peculiar style of painting.

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Species 43. (Mus. Cuming.)

**Buccinum francolinus.** Bre. testâ ovato-oblongâ, spirâ brevi, subobscurâ, anfractibus superne leviter concavis, transversis granato-striatis, striae omnino minus tenuibus, anfractu ultimo inflato; aperturâ amplâ, callositatibus dubius superne manuitâ; labro-narrowâ, fulvo-castaneo tincta et variegata, apertura favea indigo-albidâ.

**The Francoline Buccinum.** Shell ovately oblong, rather thick, spire short, somewhat obtuse, whorls depressively concave round the upper part, transversely very faintly and closely elevately striated, the interstices being very minutely cancelled, last whorl inflated; aperture large, furnished at the upper part with two callositites; yellowish orange, streaked and reticulated here and there with brownish-red, interior of the aperture yellowish white.

Bruguiere, Enc. Méth. Dict. no. 25.

*Purpura Francolinus,* Lamarck.

This may easily be distinguished from the foregoing and following species, by its minutely cancelled sculpture and delicate tone of colouring.

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BUCCINUM.—PLATE VI.

Species 43. (Mus. Cuming.)

BUCCINUM PUSIO. Buc. testa fusiformi, anfractibus superne leviter concisis, baeviatis aut transversum tennissimv striatis; columella excavata, apertura oblonga, superne callositibus manu'tis; face sulcata; purpureo-plumba, tarsiis fusco-articulatis undique cingulata, apertura fauce ceruleocele, aurantiio margine tincta.

The young Bucrinum. Shell fusiform, whorls slightly concave round the upper part, smooth or transversely very finely striated; columella excavated, aperture oblong, furnished at the upper part with callosities, interior grooved; purple-lead colour, encircled throughout with brown-articulated fillets, interior of the aperture blueish, stained at the edge with orange.


Buccinum plumatum, Gmelin.
Fusus pusio Enc. Méth.
Fusus articulatus, Lamarck.
Hab. Honduras, California.

A great deal of confusion has arisen in regard to the origin of this species, in consequence of Linnaeus having formed his description from an immature specimen (suggestive of the name pusio) "about the size of a hazel-nut," in which the dark spots range in longitudinal streaks, as he describes, instead of forming articulated bands; and in quoting the Mediterranean Sea as its habitat, thereby leading Philippi and others to confound it with the B. maculatum, of that locality.

Thanks, however, to Mr. Hanley for calling my attention to it, we possess in the collection of our Linnaean Society the very shell from which the diagnose in the 'Systema Naturæ' was drawn up, with the number referring to it on the shell, in Linnaeus's handwriting; and the specimen agrees precisely with the immature representations of the species in Gualter and Bonanni to which he refers.

So many of Linnaeus' shells were in young or bad condition, that his descriptions scarcely apply to the same of mature age and in finer state of preservation.
Species 44. (Mus. Cuming.)

**Buccinum D’Orbignyi.** *Buc. testá fusiformi-ovató, baseum versus paulatim contractá; anfractibus concentricè plicato-costatis, transversis striatis et sulcatis; labro latus plicato-entátu; late nigroque pulcherrimè variát, zoná angustá albídá cingulátá.*

**D’Orbignyi’s Buccinum.** Shell fusiformly ovate, a little contracted towards the base; whorls concentrically plicated and grooved; lip plicated within; beautifully variegated with black and yellow, encircled with a narrow white zone.


**Hab. Mediterranean.**

The colouring of this shell is extremely characteristic; the plicated ribs are divided, as it were, by the transverse grooves into nodules which are bright yellow on the front side and black at the back.

Species 45. (Mus. Cuming.)

**Buccinum ringens.** *Buc. testá ovató, solidá, gibbosiusculá, spirá brevi, acutá; anfractibus fortiter tuberculato-plicatis, transversis subtilissimè liratis et striatis, coluTmella labroque profusè sulcati et corrugati, superne canaliculati; fusce viridiqve variát, liris fusco articulati, columnellae et aperture fave albis.*

**The Grinning Buccinum.** Shell ovate, solid, rather gibbos, spire short, acute; whorls strongly tuberculately plicated, transversely very finely ridged and striated, lip and columella profusely grooved and wrinkled, channelled at the upper part; variegated with green and brown, ridges articulated with brown, columnella and interior of the aperture brown.

**Hab. Panama (on the rocks at low water);** Cuming.

Of a dark blue-green colour, varied with fine spiral cord-like ridges articulated with rusty brown.

Species 46. (Mus. Cuming.)

**Buccinum hemastoma.** *Buc. testá ovató, solidusaculá, spirá brevi, anfractibus medio tuberculato-plicatis, transversis subtilissimè liratis et striatis, columnellae margine uniónt variácosae, superne lirá callosá uniónit, supra canaliculatá; viridi, lirus transversis hic illic sanguineis, columnella labrique limitis vivide sanguineis, columnella vernalis albis, aperture fave alba.*

**The Blood-red-mouth Buccinum.** Shell ovate, rather solid, spire short, whorls tuberculately plicated in the middle, transversely very finely ridged and striated, edge of the columella minutely warty, furnished at the upper part with a callous ridge, channelled above; dark green, transverse ridges here and there dark blood-red, warts of the columella white, interior of the aperture white.

**Pollia hamastoma,** Gray, Zool. of Beechey’s Voyage, p. 112. *Hab. Panama (under stones at low water);* Cuming.

Easily recognised by the blood-red colouring of the lip and columnella, the latter sprinkled with minute white warts.

Species 47. (Mus. Cuming.)

**Buccinum rubiginosum.** *Buc. testá oblongá, ovato-fusiformi, concentricè subobsoleté plicatá, transversis sub-irregularis liraté et striát; aperture fave sulcatá; fave rubrâviretâ, fusce hic illice tinctâ, zoná unica alba cingulát.*

**The Rusty Buccinum.** Shell ovately fusiform, concentrically somewhat obsoletely plicated, transversely somewhat irregularly ridged and striated; interior of the aperture grooved; rusty-orange, stained here and there with brown, encircled with a single white zone.

**Hab. Red Sea.**

This species has a very strong resemblance with the *B. protens* which follows at Sp. 51, but is more elongated and constantly distinct.

Species 48. (Mus. Cuming.)

**Buccinum variegatum.** *Buc. testá oblongo-ovató, spirá acutá, anfractibus superne depressisculatis, liris subtilibus superficiales indique cingulatis; columnellae, exca vatá, lirá callosa superne uniónit, supra canaliculatá; cinereo-fusca, maculis viridibus variegatâ, liris nigris interdum viridis interruptis, aperture fave carnecente alba.*

**The Variegated Buccinum.** Shell oblong-ovate, spire sharp, whorls rather depressed at the upper part.

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encircled with fine superficial ridges; columella excavated, furnished with a callous ridge at the upper part, channelled above; ashy brown, variegated with blotches of light green, ridges black, sometimes interrupted with green, interior of the aperture pale blueish white.

Le Tafon, Adanson.

Potlia variegata, Gray, Zool. Beechey’s Voyage p. 112.

Buccinum viverratum, Kiener.

_Hab._ Senegal.

I cannot recognise with M. Deshayes the propriety of naming this species _Buccinum Tafon_; the French word _Tafon_, given to it by Adanson, will not assist the Latin binomial in a grammatical sense.

Species 49. (Mus. Cuming.)

**Buccinum Gemmatum.** _Buc. testâ ovatâ, crassâ, spirâ brevissimâ, acutâ; anfractibus longitudinâlis subtuberculatis, plicatis, supernâ depressissimâlis, transversâ striatis, lirîs peculiariter irregularibus undique cingulâtis; columellâ subexcavâtâ, lirâ callosâ, parâ superiorâ, punctulâ, aperture fuscâ subexcavâtâ et crenâtâ; castaneo-fuscâ undique tinctâ at variegâtâ, columellâ et aperture fuscâ aurulescentia-albis._

**The Pagoda Buccinum.** Shell ovately fusiform, spire acuminated, whorls depressely rotundately angulated round the upper part, concentrically tubered towards the apex, encircled throughout with irregular ridges; columella a little excavated, furnished at the upper part with a small callous ridge, interior of the aperture grooved and crenated; stained and variegated throughout with chestnut-brown, columella and interior of the aperture pale blueish white.

_Hab._ Island of Taboga, Bay of Panama (in clefts of the rocks at low water); Cuming.

An elegantly formed species of which Mr. Cuming only collected one or two specimens.

Species 51. (Fig. a, b, c. Mus. Cuming.)

**Buccinum Proteus.** _Buc. testâ subobovata, spirâ ovatâ, anfractibus longitudinâlis subtuberculatis, transversâ crenatâ, lirâs et striâtis; columellâ subexcavâtâ, supernâ callositate parâ superiorâ, aperture fuscâ subexcavâtâ et crenâtâ; albâ m. lutescente, fusce tinctâ, zona albâ med. formant. lirîs costa super fusce saturatiorsibus._

**The Protean Buccinum.** Shell somewhat fusiformly ovate, spire sharp, whorls longitudinally plicated and ribbed, transversely very closely ridged and striated; columella a little excavated, furnished with a small callosity at the upper part, interior of the aperture grooved and crenated, whitish or yellowish, stained with brown so as to leave a central white band, ridges stained with darker brown on crossing the ribs; lip tinged with orange.

_Hab._ Ceylon and the Philippine Islands.

Variety _b_. Fig. 51. _b._

Testa undique viretâ croceâ.

Shell bright yellow throughout.

_Hab._ Australia.

The brown colouring of Var. _b_ is much darker in some specimens than in others; in Var. _b_ from Australia the colour is one uniform delicate bright yellow
Species 52. (Mus. Cuming.)

**Buccinum avellana.** Bucc. testâ subabbreviato-ovâta, crussâ, solidâ, spirâ brevi, anfractibus superâe rudè plicato-nodosis; columellâ subexcavatâ, labro simplici; albidâ, castaneo nigroque irregulariter tincatâ et fasciatâ, columellâ et aperture fânce albis.

The filbert-nut Buccinum. Shell somewhat abrreviately ovate, thick, solid, spire short, whorls rudely plicated round the upper part; columella a little excavated, lip simple; whitish, irregularly stained and banded with chestnut and black, columella and interior of the aperture white.

_Hab._ North Coast of New Holland; Dring.

A heavy solid shell of rude structure and somewhat irregular style of painting.

---

Species 53. (Mus. Cuming.)

**Buccinum contractum.** Bucc. testâ subfusiformi, basi contractâ et canaliculâtâ, canali subrecurreo; anfractibus transversis conspicvis elevato-serialis, longitudinâli plicato-costatis, superâe angulatis, costis ad angulum nodosis, labro iutus noduloso; ferrugineo-fusce variâ, columellâ et aperture fânce albis.

The contracted Buccinum. Shell somewhat fusiform, contracted and canaliculated at the base, canal slightly recurved; whorls transversely conspicuously elevated striated, longitudinally plicated ribbed, ribs nodose at the angle, lip nodose within; variegated with rusty brown, columella and interior of the aperture white.

_Hab._ Island of Samar, Philippines (in sandy mud at the depth of eight fathoms); Cuming.

On the left side of this whorl is a fully developed varix, imparting a _Ranella_-like appearance to the shell which I have not noticed in the description fearing it may be of inconstant occurrence.

---

Species 54. (Mus. Cuming.)

**Buccinum anomalous.** Bucc. testâ gracili-fusiformi, spirâ acutâ, anfractibus longitudinaliter costatis, costis angustâs, numerosis, transversis tirisatis, liris acutis, tenuibus, regularibus, labro iutus minutè noduloso; rossaceo-
albâ, fuscescente fasciâtâ tinâta et maculâtâ, aperture fânce rossaceo-albâ.

The anomalous Buccinum. Shell slenderly fusiform, spire sharp, whorls longitudinally ribbed, ribs narrow, numerous, transversely ridged, ridges sharp, thin, regular, lip minutely noduled within; pink-white, stained and spotted in bands with light brown, aperture pink-white.

_Hab._ —?

Partaking also of the character of both _Murex_ and _Fusus._

---

Species 55. (Mus. Cuming.)

**Buccinum undoso.** Bucc. testâ ovâta, crussâ, spirâ acutâ, anfractibus longitudinaliter subobsoletâ pliâtis, liris nodosis conspicuis undique creberrimè cingulatis; columellâ subexcavatâ, aperture fânce subalba et creberrimè creberrimè; aurantio-albâ, liris olivaceo-nigris, columellâ et aperture fânce albis, margine viðeá aurantio-inteis.

The waved Buccinum. Shell ovate, thick, spire sharp, whorls longitudinally somewhat obsolescently plicated, very closely encircled throughout with conspicuous waved ridges; columella a little excavated, interior of the aperture grooved and crenated; orange-white, ridges olive-black, columella and interior of the aperture white, edge bright orange yellow.


_Nassa undosa._ Martini.

_Triton undosum._ Lamarck.

Variety, _Buccinum affinis._ Gmelin.

_Hab._ Straits of Malacca; Australia; Philippine and Society Islands; Cuming.

The errors which M. Kiener has committed in reference to this ancient and well known species, have been so fully exposed by M. Deshayes, that it is unnecessary here to recur to them, except for the sake of noticing that the shell figured by him, under some new name, as a sexual variety characteristic of the female, appears to be the _B. geminatus._ Sp. 49. found in a locality which the _B. undosum_ does not inhabit. Lamarck referred the _B. undosum_ to the genus _Triton_ in consequence of having incidentally met with a specimen in which a varix had been deposited on the last whorl, in a manner similar to that just spoken of in the _B. contractum,_ Sp. 43.

December, 1846.
Species 56. (Mus. Cuming.)

**Buccinum ustulatum.** Bucc. testá subfusciformi-ovata, spirá acuminata; anfractibus transversis undique creberrimè tiritis, liris angustis, acutis, longitudinaliter rudi plicatis, lecter tuberculatis; albá, aurantio-fusco tincta et maculata, aperture favee alba.

The singed **Buccinum.** Shell somewhat fusiformly ovate, spire acuminate; whorls transversely very closely ridged throughout, ridges narrow, sharp, longitudinally rudely plicated, slightly tuberulated; white stained and spotted with orange brown, interior of the aperture white.

**Hab.** — ?

An interesting species of new form and colouring.

---

Species 56. (Mus. Metcalfe.)

**Buccinum lignenum.** Bucc. testá ovata, anfractibus transversis tenuè, funiculatis, longitudinaliter varicosis, variis solidis, tuberculatis; aperture favee sulcata et crenata; inter-fusoescens, castaneo-fusco fasciatiim maculata, fasciis fuscis.

The wooden **Buccinum.** Shell ovate, whorls transversely finely corded, longitudinally varicose, varices solid, tuberulated; interior of the aperture grooved and crenated; yellowish brown, stained with bands of brown blotches, cords brown.

**Hab.** — ?

The longitudinal plicated growth of this shell is deposited in varices throughout the last whorl, partaking very much in this respect of the generic character of **Murex.**

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Species 58. (Mus. Cuming.)

**Buccinum insignis.** Bucc. testá fusiformi-ovata, subconica, anfractibus supernè lecter depressis, transversum undique irregulariter tiritis et sulcatis; colunmellá supernè livida callosa svnnitá, supra canaliculatá, aperture favee sulcata; albá, castaneo-fusco variegatá.

The remarkable **Buccinum.** Shell fusiformly ovate, somewhat ventricose, whorls slightly depressed round the upper part, transversely irregularly ridged and grooved throughout; columnella furnished at the upper part with a callous ridge, channelled above, interior of the aperture grooved; white, variegated with chestnut-brown.

**Hab.** St. Elena, West Columbia (in the clefts of rocks at low water); Cuming.

A fine species encircled throughout by grooves and ridges of a peculiar style of carving.

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Species 59. (Mus. Cuming.)

**Buccinum balteatum.** Bucc. testá subfusciformi-ovata, spirá acuta, anfractibus transversis tiritis, longitudinaliter creberrimè tuberculato-costatis, aperture fuscus sulcata; lutescente-alba, nigricante-fusco balteata, costarum interstitialis superum fusco tincta.

The belted **Buccinum.** Shell somewhat fusiformly ovate, spire sharp, whorls transversely ridged, longitudinally very closely tubecularly ribbed, interior of the aperture grooved; yellowish-white, belted with blackish brown, interstices between the ribs stained with brown.

**Hab.** Torres Straits.

Distinguished by the frequency of the broad longitudinal ribs and characteristic style of painting.

---

Species 60. (Mus. Cuming.)

**Buccinum amygdala.** Bucc. testá oblongo-ovata, crassa, solidá, spirá brevi, acuta; anfractibus longitudinaliter obtusis costatis, transversum creberrinum incisis, liris intermedium obtusis, subtilissimis squaminis; columnellá superum callosa et canaliculata; aurantio-fuscoescens, castaneo-basi tincta, columnellá et aperture favee aurantio-lactea.

The almond **Buccinum.** Shell oblong-ovate, thick, solid, spire short, acute; whorls longitudinally obtusely ribbed, transversely very closely cut, intermediate ridges obtuse and very finely scaled; columnella callous and channelled at the upper part, orange brown, stained at the base with chestnut, columnella and interior of the aperture orange cream colour.


**Hab.** North coast of New Holland.

Very peculiar in form and general appearance, and easily distinguished by its minute squamate sculpture.

---

Species 61. (Mus. Metcalfe.)

**Buccinum funiculatum.** Bucc. testá fusiformi, basi recurva, anfractibus superum subangulatis, longitudinaliter rudi costatis, costis ad angulum nodosis, transversum undique funiculatis; albídá, funiculis fuscoscentibus, pone costas nigris.

The corded **Buccinum.** Shell fusiform, recurved at the base, whorls slightly angulated at the upper part, longitudinally rudely ribbed, ribs nodose at the angle, transversely corded throughout; whitish, cords brown, black behind the ribs.

**Hab.** — ?

Peculiar in having the corded ridges scarcely coloured except at the back of the ribs, where they are jet black.
**Buccinum.**

Plate IX.

**Specie62.** (Mus. Taylor.)

**Buccinum Coromandelianum.** *Buc. testa ovata, crassa, subcompresse, spira brevinctata; anfractibus superius depressiis, infra nodoso-platicis, transversis sublittiter liratis et striatis, columellae labroque infra sulcatis et corrugatis; albidus, anfractibus sepulchral est; maculatū.

The Coromandel Buccinum. Shell ovate, thick, somewhat compressed round the upper part, nodosely plicated beneath, transversely ridged and striated, lip and columella grooved and wrinkled within; whitish, stained and blotched with orange-brown.


*Hab.* Coromandel; Panama; Cuming.

The specimen here figured is remarkable for its bright blotches of colouring, the species generally having a much more sombre appearance.

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**Species 63.** (Mus. Taylor.)

**Buccinum latum.** *Buc. testa ovata, anfractibus transversis littatis, liris conspicuis, augentis, subdistantibus, longitudinaliter fortiter costatis, costis nodosis; columellae labroque corrugatis et sulcatis; alba, rubra, aurantia costas super vicidae maculatē.

The Gay Buccinum. Shell ovate, whors transversely ridged, ridges conspicuous, narrow, rather distant, longitudinally strongly ribbed, ribs nodose; lip and columella wrinkled and grooved; white, vividly blotched with red-brown upon the ribs.

*Hab.*

A prettily coloured species, in which the sculpture is developed with peculiar force.

---

**Species 64.** (Mus. Cuming.)

**Buccinum Fusoides.** *Buc. testa fusiformi, basi contorta et recurva, spira aequunata; anfractibus medio obsitus angulatis, ad angulum eleganter nodosis, transversis eruberrimis liratis, liris subtilissimis, leviter nodulatis; fuscescente, fusco hic illic flaventiatū.

The Fusis-like Buccinum. Shell fusiform, twisted and recurved at the base, spire acuminate; whors obtusely angled in the middle, elegantly noduled at the angle, transversely very closely ridged, ridges fine, slightly undulated; light brown, stained here and there with brown flames.

*Hab.*

Of a character similar to that of the group figured in Plate II.

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**Species 65.** (Mus. Taylor.)

**Buccinum effusum.** *Buc. testa ovato-conici, tumae, inflected, spira breviscenta. anfractibus obscuris planis, striatis, labro simplici, effuso; castano-fusco.

The Effused Buccinum. Shell ovately conical, thin, inflated, spire rather short but elevated, whors obscurely flatly ridged and minutely striated; lip simple, effused; chestnut-brown.

*Hab.*

The ridges of this species are of quite a superficial character.

---

**Species 66.** (Mus. Taylor.)

**Buccinum testudinum.** *Buc. testa ovata, basi subcontorta, spira subobtusa, anfractibus superius depressis costatis, levigatis; cinerea, nigriore-fusco tessellata et flaventia; columellae rufescento-aurantiaca, aperture fuscus purpureo-nigricantia.

The Tortoise-shell Buccinum. Shell ovate, somewhat twisted at the base, spire rather obtuse, whors rather depressed at the upper part, smooth; in-colour, tessellated and flamed with black-brown; columella reddish orange, interior of the aperture purple-black.

Martyn, Universal Conch. vol. i. pl. 8.

*Hab.* New Zealand.

The *B. maculatum* has been regarded by most writers as a variety of this species, but M. Deshayes considers that the animals vary sufficiently with the shells to allow of their being separated.

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**Species 67.** (Mus. Cuming.)

**Buccinum modificatum.** *Buc. testa subobso-fusiformi, basi contorta et recurva, anfractibus superius subangulatis, ad angulum eleganter plicato-nodosis, transversis eruberrimis liratis, liris pareis, augentis, leviter nodulatis; pallide integro-fuscescentia.

The Modified Buccinum. Shell somewhat stoutly fusiform, contorted and recurved at the base, whors slightly angulated towards the upper part, elegantly plicated noduled at the angle, transversely very

December, 1846.
closely ridged, ridges small, narrow, slightly waved; pale yellowish brown.

_Hab._ — ?

This is another species of the peculiar form of that figured above it, and of those represented in Plate II.; the detail of sculpture is the same in a modified form.

Species 68. (Mus. Taylor.)

**Buccinum obscurum.** *Buc. testa pyramidal-ovata, anfractibus superne depressiis, levigatis aut transversum obscurè liratis; plumbico-albicante, aperture fave castaneo-fuscō.*

The obscure _Buccinum._ Shell pyramidally ovate, whorls rather depressed round the upper part, smooth or transversely obscurely ridged, leaden white, interior of the aperture purple-brown.

_Hab._ — ?

Having somewhat the general aspect of a _Planaxis._

Species 69. (Mus. Cuming.)

**Buccinum cyaneum.** *Buc. testa ovata, tenui, subinflatā, spirā breviscutā, levigatā aut obscurè incisā, labro simplici, subeffuso; plumbē, maculis perpaucis fuscis oblongis tinctā, aperture fave castaneo-fuscō.*

The azure _Buccinum._ Shell ovate, thin, somewhat inflated, spire rather short, smooth or obsoletely engraved, lip simple, effused; lead colour, stained with a very few transversely oblong spots, interior of the aperture chesnut brown.

_Muller; Gray MSS. British Museum._

_Hab._ — ?

A light thin shell of a dull leaden colour exteriorly, and of a deep chesnut interiorly.

Species 70. (Mus. Taylor.)

**Buccinum citrinum.** *Buc. testa ovata, basi truncatā et latē emarginatā, spirā breviscutā, anfractibus convexis, levigatis, atate rugosis; columellā brevi, labro tenui, simplici; pallide luteo-aurantiā.*

The citron-coloured _Buccinum._ Shell ovate, truncated and widely emarginated at the base, spire rather short, whorls convex, smooth, rough with age, colu-

_Hab._ — ?

Of rather an aberrant form, and which M. D'Orbigny has, I believe, proposed for the type of a new genus.
Specimens slightly magnified
Species 71. (Mus. Cuming.)

Buccinum biliratum. Buc. testa fusiformis, basi subcontracta, leviter recurvata; anfractibus liris subtilibus binis nudique cingulatis, interstitialis minutè cancellatis; labro crenato; lutescente, castaneo marmoreâ.

The double ridged Buccinum. Shell fusiform, somewhat contracted and a little recurved at the base; whorls encircled throughout by pairs of fine ridges, the interstices between which are minutely cancelled; lip crenated; yellow, marbled with chesnut.

Hab. Galapagos Islands; Cuming.

An elegantly sculptured fusiform species with a varicose lip like the small Tritons.

Species 72. (Mus. Cuming.)

Buccinum concentricum. Buc. testa fusiformis, basi contracta, anfractibus crevè crecentiè costata, costis liris acutis striisque decussatis, liris costas super macronata; cervalescenté albâ, refo-fusico variégata.

The concentric Buccinum. Shell fusiform, a little twisted at the base, whorls closely concentrically ribbed, ribs crossed with sharp ridges and stria; ridges pointed on the ribs; blueish white, variegated with red-brown.

Hab. ——?

The red-brown colouring is mostly in the interstices between the ribs.

Species 73. (Mus. Cuming.)

Buccinum nigricostatum. Buc. testa subfusiformis, basi recurvata, spirà acuminata; anfractibus concentricè costata, fuscis subtilibus nudique cingulatis; aperturâ parvâ; olivaceo-luteâ, costis nigris.

The black-ribbed Buccinum. Shell nearly fusiform, recurved at the base, spire acuminated; whorls concentrically ribbed, encircled throughout with fine cords; aperture small; olive yellow, ribs black.

Hab. Panama (under stones at low water); Cuming.

Easily to be recognized by its dark concentric ribs.

Species 74. (Mus. Cuming.)

Buccinum pictum. Buc. testa elongato-ovatâ, basi truncata, tenuecâ, levigata, labro simplici, subfeuso; luteo-albicante, refo-costaneo maculatâ et flavulatâ.

The painted Buccinum. Shell elongately ovate, truncated at the base, rather thin, smooth, lip simple, slightly effused; yellowish white, spotted and flamed with reddish chesnut.


Hab. Island of Capul, Philippines (on the reefs); Cuming.

A smooth handsomely painted species, described by Martini in 1750, and since left in obscurity.

Species 75. (Mus. Cuming.)

Buccinum cingulatum. Buc. testa acuminato-ovatâ, basi leviter recurvata, levigata, aperturâ parvâ, labro sub effuso; plumbo-fuscâ, linea nigris nudique cingulatâ.

The encircled Buccinum. Shell acuminately ovate, slightly recurved at the base, smooth, aperture small, lip a little effused; leaden-brown, encircled throughout with black lines.

Hab. ——?

The lines which encircle this shell exist only in colour, but are nevertheless seen within the lip.

Species 76. (Mus. Cuming.)

Buccinum fasciculatum. Buc. testa elongato-ovatâ, basi truncata, levigata, polito, obsolete lirate, liris spicis versus distinctioribus; labro subivenerato, minulè crenulato; aurantiâ, linea nigris angulis hic illic albi punctatis regulariter cingulatâ.

The finely-banded Buccinum. Shell elongately ovate, truncated at the base, smooth, polished, or obsolete ridged, ridges more distinct towards the apex; lip rather thickened, minutely crenulated; orange, regularly encircled with narrow black fillets, dotted here and there with white.

Hab. Island of Mindanao, Philippines; Cuming.

The dark fillets of this beautiful species are elevated in ridges on the first one or two whorls, and gradually become obsolete towards the margin.

Species 77. (Mus. Cuming.)

Buccinum Tritonoïdes. Buc. testa elongato-ovatâ, subventricosa, basi truncata, anfractibus levibus, ant obsolete transversis incisis, labro subfeuso, crenulato; refo nudique maculatâ et variégata.

December, 1846.
The Triton-shaped Buccinum. Shell elongately ovate, rather ventricose, truncated at the base, whorls smooth or absolutely transversely engraved, lip somewhat effused, crenulated; blotched and variegated throughout with dark red.

_Hab._ Island of Ticao, Philippines; _Cuming._

Allied in form to the species figured above it, but quite distinct in detail.

Species 78. (Mus. Cuming.)

**Buccinum teniatum.** _Buc. testae oblongo-ovata, spirae brevissimae, anfractae ultimo peroblongo, transversim tenuissime elevato-striato, columella plano-excavata, callositate parei supernae munita, labro intus minuta denticulato; castaneo-fuscis, teiniis angustis fistul-aurantiis regulariter cinctis._

The filleted Buccinum. Shell oblong-ovate, spire very short, last whorl very oblong, transversely very finely elevated and striated, columella flatly excavated, furnished at the upper part with a small callosity, lip minutely denticulated within; chestnut brown, regularly encircled with narrow fulvous orange fillets.


I refer this species to _Buccinum_ on account of the callosity and denticles at the upper extremity of the aperture.

Species 79. (Mus. Cuming.)

**Buccinum vexillum.** _Buc. testae oblongo-ovata, spirae brevissimae, acuta, anfractae ultimo peroblongo, levigata ant transversim minutiissimae incisi; columella plano-excavata, callositate parei supernae munita, labro intus minuta denticulato; rufo-aurantiis, fasciis angustis nigris regulariter cinctis._

The flag Buccinum. Shell oblong-ovate, spire very short, sharp, last whorl very oblong, smooth or very minutely transversely engraved; columella flatly excavated, furnished at the upper part with a small callosity, lip minutely denticulated within; reddish-orange, regularly encircled with narrow black bands.


_Hab._ Island of Ticao, Philippines; _Cuming._

Authors have been somewhat divided as to the generic situation of this singular species, which I have referred to _Buccinum_ for the same reason given in reference to the preceding. M. Kiener’s appropriation of it is inconsistent.
Species 80. (Mus. Cuming.)

**Buccinum pulchrum.** Buc. testá ovátá, medio gibusá, atríunge alternatú, austractibus longitudinaliter fortíter tuberculato-costatís, transversá striatís, costás superíratis, labro ínthus décussatá; orenveo-ávitáce.

**The pretty Buccinum.** Shell ovate, gibbous in the middle, attenuated at both ends, whorls longitudinally strongly tubercularly ribbed, transversely striated, ridged across the summit of the ribs; lip denti-culated within; blueish olive, banded with black, short ridges white, interior of the aperture violet.

_Hab._ Malacca.

A stout smooth shell of a form rather foreign to the present genus, though irreproachable to any other.

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Species 81. (Mus. Metcalfe.)

**Buccinum solidum.** Buc. testá ovátá, crassá, solidá, basí leviter recurvá, spirá acuminatá; austractibus rotundátis obscuró plicato-costatís, transversó subhastáter liratis, interstícís minutísíssimís incissís; apertúra purá, fúnice solútá; soróduc alba, maccis quadrátis vígris inter costás uniseriáliis inéctis, apertura fúnice laticís.

**The solid Buccinum.** Shell ovate, solid, slightly recurved at the base, spire acuminated; whorls rounded, obscurely plicated ribbed, transversely rather ob-olutely ridged, interstices very minutely engraved; aperture small, interior grooved; dead white, en-circled with a single row of square black spots between the ribs, interior of the aperture yellow.

_Hab._ Island of Capul, Philippines; Cuming.

Easily recognised by the central row of square black spots; the columella is obscurely plaited, presenting a link with _Turbonillum._

Fig. 82 proves on further examination to be identical with Sp. 54. For Sp. 82 see Plate XIII.

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Species 83. (Mus. Cuming.)

**Buccinum rapulum.** Buc. testá oblongo-ovátá, solidís, vexilatá, basí contractá, cortálatá et recurvá, levigatá, basí striátá; alba, épiderrido tutescete inumá.

**The little Turnip Buccinum.** Shell oblong-ovate, rather solid, contracted, twisted and recurved at the base, smooth, striated at the base; white, covered with a yellowish epidermis.

_Hab._ Mediterranean.

Dr. Philippi has expressed his opinion in 'Wiegman's Archives', that this species is without doubt (absque illo dubio) the _Buccinum pusio_ of Linnaeus; I have, however,
through the kindness of Mr. Hanley in drawing my attention to it, identified that species with Lamarck's *Fusus articulatus* by an examination of the very specimen, in the collection of our Linnean Society, from which the diagnose in the 'Systema Naturae' was drawn up. It is a specimen of immature growth, in which the dark spots are disposed in longitudinal streaks, in a manner very similar to a figure of the species in Bonanni, to which Linnaeus refers. Gmelin appears to have been the first to notice the *B. maculolunx* under the title of *Voluta striata*, a name which cannot be used as a specific with the present genus, in consequence of its having been already made use of by his predecessors Martyn and Gronovius. M. Deshayes quotes the *Voluta Syracusana* of Gmelin as synonymous with the present species; but this is unsatisfactory inasmuch as Gmelin refers to the same figure in Bonanni, beyond doubt Lamarek's *F. articulatus*, as Linnaeus does for the *B. pusio*, and his description agrees with that species although it is equally unfavourable in respect of locality.

Species 86. (Mus. Cuming.)

**Buccinum distortum.** *Buc. testá ovatá, crassissimá, ponderosá, spirá brevi, desessá; anfractibus lacertos, apicem versus sulcatá et nodosis, ultima basi incuso, superá rotundato, distorte elevato, ad apertura in alva simulata exentis; colunellá subexcavátá, corrugatá, labro inus sulcató; abde, castaneo-fusco profusí tinctá et variegatá.*

The distorted Buccinum. Shell ovate, very thick, ponderous, spine short, sunk; whorls smooth, grooved and noduled towards the apex, last whorl engraved, rounded at the upper part, distortedly elevated, extended at the aperture into a kind of sinuated wing; colunella slight excavated, wrinkled, lip grooved within; white, profusely stained and variegated with Chesnut brown.

*Gray, Wood's Index Test. Suppl. pl. 4. f. 7.*

*Hab. Punto, St. Elena, West Columbia; Cuming.*

A species of curiously distorted growth, reminding one very much of the remarkable *Turbinella*-like shell described by Mr. Hinds in the 'Zoology of the Sulphur' as the type of a new genus, under the name of *Cyrtodes.*

Species 87. (Mus. Cuming.)

**Buccinum lividum.** *Buc. testá subfusiformi-ovatá, anfractibus transversis creberrimá elevato-stratiatis, medio angulatá, ad angulam compressë nodosis; labro inus denticulató; livido-fusco, variegatá, apertura fave fuscá.*

The livid Buccinum. Shell somewhat fusiformly ovate, whorls transversely very closely striated, angulated in the middle, compressly nodose at the angle; lip denticulated within, livid brown, variegated, interior of the aperture brown.

*Hab. Island of Negros, Philippines; Cuming.*

This and the following species belong rather to the denticulated group which I have introduced under the head of *Ricinula.*

Species 88. (Mus. Cuming.)

**Buccinum hirnmonatum.** *Buc. testá ovátá, subfusiformi, anfractibus transversis radiis ratis, medio angulatá, ad angulum seriatim nodosis, nodis acutë mcronatá; labro inus denticulató; cinquare-fusco.*

The double-pointed Buccinum. Shell ovate, somewhat fusiform, whorls transversely rudely ridged, angulated in the middle, encircled with two rows of sharp pointed nodules at the angle; lip denticulated within; ashy brown.

*Hab. Philippines; Cuming.*

A stouter shell than the preceding, and more sharply noduled.

Species 89. (Mus. Cuming.)

**Buccinum pastinaca.** *Buc. testá ovatá, crassiusculá, spira suturis excavátis, anfractibus rotundatis, longitudinaliter creberrimá plicato-cosstatis, costis latissimis, tirus transversis acutis decussatis; colunella minuti corrugatá, apertura subrotundá, fave sulcatá; alba, epidermide flavescente intata.*

The parsnip Buccinum. Shell ovate, rather thick, sutures of the spire excavated, whorls rounded, longitudinally very closely plicately ribbed, ribs rather broad, crossed with sharp transverse ridges; colunella minutely wrinkled, aperture nearly round; white, covered with a yellowish epidermis.

*Hab. Bay of Montija, West Columbia; Cuming.*

A distinct varix is formed at the lip of this shell after the manner of some of the Tritons.
Buccinum. Pl. XII

Sowerby del et lib
Species 90. (Mus. Cuming.)

**Buccinum assimile.** Buc. testá ovatá, parvá, transversim cerebrinis lirátá, longitudinaliter subobsoleté concentricá costatá; intus sectatá, purpura-fusca variegatá.

The similar **Buccinum.** Shell ovate, small, transversely very closely ridged, longitudinally rather obsectly concentrically ribbed; yellowish, variegated with purple-brown.

*Hab.* ?

Very closely allied to the *B. D'Orbignyi* of the Mediterranean, but seemingly distinct.

Species 91. (Mus. Cuming.)

**Buccinum obliqui-costatum.** Buc. testá fusiformi, basi subrecruciá, longitudinaliter oblique et cerebrinis costatá, costis liris parvis decussatis; labro ineratato; fusco-rufá, liris transversis subalbátis.

The obliquely ribbed **Buccinum.** Shell fusiform, recurved at the base, longitudinally obliquely and very closely ribbed, ribs crossed with small ridges; lip thickened; brown-red, transverse ridges whitish.

*Hab.* Island of Ticao, Philippines; Cuming.

The first of a peculiar fusiform group of which the species represented at Fig. 95, 96 and 97 also belong.

Species 92. (Mus. Cuming.)

**Buccinum dirum.** Buc. testá fusiformi, basi leviter recurvá, as FORMATUS rotundatis, striis rugosis conspicienis elevatis nudüne cingulatis, aperture fusa solutá; intus extusque sordide fusá.

The **Buccinum.** Shell fusiform, slightly recurved at the base, whorls rounded, encircled throughout with conspicuous elevated rough strie, interior of the aperture grooved; dull brown within and without.

*Hab. *? 

The strie with which the entire surface of this species is engraved almost assume the character of fine ridges.

Species 93. (Mus. Taylor.)

**Buccinum eburneum.** Buc. testá pyramidalis-ovatá, spirá acutá, asfractisius superá convexis, ad angulum nodosis, infra obscuré liratis, apertura brevissimá; intus extusque eburnéus, epidermide viridi-latei tündus.

The **Buccinum**. Shell pyramidal, spire sharp, whorls concave round the upper part, nodose at the angle and obliquely ridged beneath, aperture rather short; ivory white within and without, covered with a greenish yellow epidermis.

*Hab.* ?

A pure white pyramidal shell.

Species 94. (Mus. Taylor.)

**Buccinum Littorinoides.** Buc. testá fusiformi, basi subrecruciá, terrigatá, labro simplex; olivaceo-fusco, obscure lineato; aperture fusa pallida carnea.

The **Periwinkle-like Buccinum.** Shell fusiform, a little recurved at the base, smooth, lip simple; olive-brown, obscurely linedated, interior of the aperture pale flesh-colour.

*Hab.* New Zealand; Earl.

A smooth sombre looking shell encircled with faint lines.

Species 95. (Mus. Cuming.)

**Buccinum marmoratum.** Buc. testá subelongato-fusiformi, basi recurvá; asfractibus convexitis, liris subtillibus obtusis granosis longitudinalibus et transversis decussatis; rosaceo-albá, rubido-fusco conspiciu marmoro-ratá.

The **Marble Buccinum.** Shell somewhat elongately fusiform, recurved at the base; whorls convex, crossed throughout with fine obtuse granulated ridges; pinkish white, conspicuously marbled with reddish-brown.

*Hab.* Island of Capul, Philippines; Cuming.

An interesting species constituting the type of a section of the genus, of which the two following form part.

Species 96. (Mus. Cuming.)

**Buccinum gracile.** Buc. testá gracili-fusiformi, basi canaliculará et recurvá; asfractibus medio subangulatis, liris granosis obtusis longitudinalibus et transversis decussatis, labro intus minué denticulato; albidi, granora seríbus longitudinalibus aurántio-fuscís.

The **Slender Buccinum.** Shell slenderly fusiform, channelled and recurved at the base; whors a little angulated in the middle, crossed by longitudinal and

December, 1846.
BUCCINUM.—PLATE XII.

transverse obtuse granose ridges, lip minutely denticulated within; whitish, longitudinal rows of granules orange-brown.

Hab. Island of Masbate, Philippine Islands, (under stones at low water); Cuming.

The granules at the angle are more prominent than the rest, and of rather darker colour.

Species 97. (Mus. Cuming.)

BUCCINUM CROCatum. Buc. testá subelongato-fusiformi, basi canaliculatá et recurvá, longitudináliter ereberríné plicatá, transversí gránoso-líratá, labro íntus mínúté denticulátó; croceo-aurantí; hic ilíc allípunctátá, stríís ínter líras aurántio-fusco saturátíore.
The saffron-coloured Buccinum. Shell somewhat elongately fusiform, channeled and recurved at the base, longitudinally very closely plicated, transversely granosely ridged, lip minutely denticulated within; saffron-orange, specked here and there with white, strie between the ridges of a darker orange brown.

Hab. Island of Capal, Philippines; Cuming.

More deeply coloured than either of the preceding species of this form.

Species 98. (Mus. Cuming.)

BUCCINUM TRILINEATUM. Buc. testá abbreviato-fusiformi, basi subrecurvá, affractíbis apicem versus plicato-nodosí, últímo levígato, aperture subcontractá, fusco sulcatá; albidá, fasciis duabus, utrásque línis tribus cinereo-nigris compositá, cingulatá.
The three-lined Buccinum. Shell shortly fusiform, a little recurved at the base, whors plicately noduled towards the apex, last whorl smooth, aperture somewhat contracted, interior grooved; whitish, encircled by two bands each of which is composed of three ashy-black lines.

Hab. — ?

Easily recognised by the bands of lines which are scarcely sufficiently distinguished in the figure.
BUCCINUM.

PLATE XIII.

Species 47. (Fig. Kiener.)

**Buccinum discolor.** *Buc. testa poræ, Olivaeformi, violacea-grisea, transversim tenueissimé striatá, spirá acutá, superne plicis longitudinalibus distincta; anfractibus concentricis; aperture circinát, ovatá; columellá tenui; labro dextra denticulato, intus plicato.

The *discoloured Buccinum.* Shell rather small, Olive-colored, volute grey, transversely very finely striated, spire sharp, distinguished at the upper part by longitudinal plaits; whorls rather convex; aperture ash-colour, ovate; columella smooth; right lip denticulated, plaited within.

**Quoy, and Gaimard, Voy. de l’Astron. pl. 30. f. 23, 25.**

Hab. Island of Tonga-Tabou.

As this species has a characteristic appearance I venture to copy M. Kiener’s figure and description of it; it is quite unknown to me.

 Species 100. (Fig. Kiener.)

**Buccinum Blainvillii.** *Buc. testa ovata, elongata, albovent; spirá acutá, cancellatá, costulis longitudinalibus et striis transversis decussatá; anfractibus angustis, in medio carinatis; aperture ovata, violascens; columellá rufescens; labro dextra interius tenuer striato.

**Blainville’s Buccinum.** Shell ovate, elongated, whitish, spire sharp, cancelled, decussated with fine longitudinal ribs and transverse strié; whorls narrow, keeled in the middle; aperture ovate, pale violet; columella reddish; right lip finely striated within.

**Deshayes, Voy. Bellanger aux Indes Orientales.**

**Buccinum testum, Wood.**

**Buccinum cancellatum, Quoy and Gaimard.**

Hab. Malabar.

This species I insert also on the authority of M. Kiener.

 Species 101. (Mus. Cuming.)

**Buccinum cingulum.** *Buc. testa ovata, spirá brevissimá, spirae subulata subprofunudis; anfractibus convexis, corbaceis nudiqué tenueissimis, aperturâ oblonga; labro intus denticulato; rufo-castaneâ, zonulâ angustâ alba medio cinetâ.

**The little girdle Buccinum.** Shell ovate, spire rather short, sutures of the spire rather deep, whorls convex, very closely finely grooved throughout; aperture oblong, lip denticulated within; reddish chestnut, encircled round the middle with a narrow white zone.

Hab. —?

It should perhaps be observed that there is a small callosity at the upper part of the columella.

 Species 102. (Mus. Cuming.)

**Buccinum ferreum.** *Buc. testa acuminato-turritâ, sub-fusiformi, anfractibus rotundatis, superne leviter salutatis; columellâ subcontortâ, aperture fuscâ radiatâ tenuilirata; cinereo-fuscâ, nigro obscurâ spiraliter lineata.

**The iron Buccinum.** Shell acuminately turreted, somewhat fusiform, whorls rounded, slightly grooved round the upper part; columella slightly twisted, interior of the aperture rayed with fine ridges; ash-brown, obscurely spirally lineated with black.

Hab. —?

A smooth polished shell of an ashy slate colour, obscurely lineated throughout.

 Species 103. (Mus. Cuming.)

**Buccinum hydrophanum.** *Buc. testa oblongo-ovata, tenue, subhyaloide, epidermide tenui ricirescente partim indutâ; spirâ productâ, anfractibus rotundatis, levibus ant tenueissime concentricè striatâ; columellâ brevë, subtruncatâ; cinerea ant livido-carulescente, intus cicidè ferrugineo-castaneâ.

**The hydrophanous Buccinum.** Shell oblong-ovate, thin, somewhat hyaline, partially covered with a thin pale green epidermis; spire produced, whorls rounded, smooth or very finely concentrically striated; columella short, somewhat truncated; ash colour or livid blue, bright ferruginous chestnut within.

**Hancock, Ann. and Mag. Nat. Hist. vol. xviii. p. 325.**

Hab. West Coast of Davis’s Strait; Warham and Harrison.

A thin bright ferruginous brown shell more or less enveloped with that livid chalky coating, permeable to water, which is in a manner peculiar to Arctic species.

February, 1847.
Species 104. (Mus. Cuming.)

**Buccinum pyramidalare.** Buc. testā acuminato-turritā, spirā valde productā; anfractībus supernē fortiter obliquē plicatis et corrugatis, aperturā brevinsculā; albidā, ferrarīnīo-luteo tinctā.

**The pyramidal Buccinum.** Shell acuminately turrit, spire very much produced; whorls strongly obliquely plicated and wrinkled round the upper part; aperture rather short; whitish, stained with rusty yellow.

_Hab._ — ?

This appears to be distinct from any of the numerous varieties of _B. nudatum._

---

Species 105. (Mus. Cuming.)

**Buccinum tubulosum.** Buc. testā ovato-turritā, spirā acuminatā, valde productā; anfractībus rotundatīs, e surfaccībus creberrimīs tenuissimīs striatīs; aperturā brevī, rotundatā; luteo-fusca, apertura fonce albidā, annuitio tinctā.

**The tubulose Buccinum.** Shell ovately turrit, spire acuminated, very much produced; whors rounded, strongly plaited from the sutures, transversely very closely finely ridged; aperture short, rounded; yellowish-brown, interior of the aperture whitish, tinged with orange.

_Hab._ — ?

Distinguished by the rounded tubular structure of the whors.

---

Species 106. (Fig. Kiener.)

**Buccinum Delalandii.** Buc. testā ovato-oblongā, sub-turritculātā, cinerē, transversīm tenuissimām striatā, fasciās longitudinalitumus undulatās; spirā acutā; aperturā ovato-oblongā; labro luteī, albo, dilatato, intus striato, rubescente; epidermide cornē anthracind tinctā.

**Delaland’s Buccinum.** Shell ovately oblong, somewhat turriculated, ash colour, transversely very finely striated, with waved longitudinal bands; spire sharp, aperture ovately-oblong; lip smooth, white, dilated, striated within, reddish; covered with a greenish epidermis.

_Kiener, Icon. coq. viv. p. 15. pl. 5. f. 15._

_Hab._ Cape of Good Hope.

This is another species described and figured by M. Kiener as here represented, which is unknown to me; his reference to Chemnitz however is certainly incorrect.

---

Species 107. (Fig. Kiener.)

**Buccinum Quoyi.** Buc. testā ovato-oblongā, fulvā, transversīm plurimum longitudinaliter tenuissimāe striatā; spirā acutā; columellā prominatā; aperturā ovali-formā, rubescente; labro arenato, internī tinctā.

**Quoy’s Buccinum.** Shell ovately oblong, fulvous, transversely very numerous and finely longitudinally striated; spire sharp; columella prominent; aperture oval-shaped, reddish; lip arched, striated internally.

_Kiener, Icon. coq. viv. p. 16. pl. 5. f. 13._

_Hab._ New Zealand.

Also transcribed and illustrated from M. Kiener’s ‘Iconographic’, as a characteristic looking species with which I am not acquainted.

---

Species 108. (Mus. Cuming.)

**Buccinum Aethiops.** Buc. testā ovātā, spirā brevinscula, anfractībus supernē latē plano-depressīs, regulariter costatīs, costās grandias convexas interstitiis latangulāris, excrētās; columellā at aperture fonce subcorrugatā ant tiritās; albidē, epidermide cornē anthracind tincta.

**The blackamoor Buccinum.** Shell ovate, spire rather short, whors broadly flatly depressed round the upper part, regularly ribbed, ribs large, convex, interstices rather broad, excavated; columella and interior of the aperture somewhat wrinkled and ridged; white, covered with a coal-black horny epidermis.

_Hab._ — ?

A remarkable species approximating in form and general character to the _Purpura trochlea_ and its congers.
Species 109. (Mus. Cuming.)

**Buccinum glandiforme**. Buc. testa abbreviato-ovata, anfractibus transversis striatis, striis basim versus fortioribus, superne oblique corrugatis; pallide spinulosis.

The acorn-shaped **Buccinum**. Shell abbreviately ovate, whorls concavely depressed round the upper part, then conspicuously noduled, striated throughout beneath; whitish, stained with bluish lead-colour, with a narrow ash-black zone near the nodules, columella and interior of the aperture ash-purple.

_Hab._ — ?

The edge of the lip is slightly sinuated on the nodulous angle.

Species 110. (Mus. Cuming.)

**Buccinum corrugatum**. Buc. testa oblongo-ovata, anfractibus transversis striatis, striis basim versus fortioribus, superne obliquè corrugatis; pallide spinulosis.

The wrinkled **Buccinum**. Shell oblong-ovate, whorls transversely striated, striae stronger towards the base, obliquely wrinkled round the upper part; light bay colour.

_Hab._ — ?

Peculiarly characterized by the oblique concentric wrinkles.

Species 111. (Mus. Cuming.)

**Buccinum rígatum**. Buc. testa fusiformi-ovata, spirá acuta, transversim undique elevato-striata, longitudinaliter irregulariter caricosa; albida aut florescente.

The wrinkled **Buccinum**. Shell fusiformly ovate, spire transversely elevated striated throughout, longitudinally irregularly variegate; whitish or light brown.

_Hab._ — ?

A peculiarly formed species in which the variegate growth does not appear to be of accidental occurrence.

Species 112. (Mus. Cuming.)

**Buccinum cretaceum**. Buc. testa acuminato-pyramidali,

February, 1847.
irregularly plicated, peculiarly channelled and contracted at the base; aperture small; yellowish white.

_Hab._ — ?

A light delicate species in which the whorls are of a tubulous Scalaria-like growth.

---

Species 116. (Mus. Cuming.)

**Buccion lineare.** _Buc._ testa ovata, crassiuscula, lanceo-gata, spirae brevi, acetata; anfractibus superne subcompressis; columellae arcuatae, superne callosae; cirrata cincta viridescente-fusca, lineis nigris inaequalibus undique conspicue cincinnata, columellae albida, aperture Lance purpureo-cinerata.

**The line-drawn Buccion.** Shell ovate, rather thick, smooth, spire short, acute; whorls somewhat compressed round the upper part; columella arched, callous above; ash or greenish brown, conspicuously encircled throughout with unequal black lines, columella whitish, interior of the aperture purple ash.

_Hab._ — ?

A very characteristic species of solid growth not much unlike the common periwinkle in general aspect.

---

Species 117. (Mus. Cuming.)

**Buccion lacteum.** _Buc._ testa oblongo-ovata, spirae acetata, anfractibus superne concevo-impessis; columellae arcautae, aperture lancea radiatia tinata; lacoce-cavata, lineis nigricantibus obscurè notata, aperture lancea latæ, purpureo-fusco tinata, liris radiantium albis.

**The milky Buccion.** Shell oblong-ovate, spire sharp, whorls concavely impressed round the upper part; columella arched, interior of the aperture radiately ridged; milky-blue, marked with obscure black lines, interior of the aperture yellow, stained with purple-brown, radiating ridges white.

_Hab._ — ?

This shell is enveloped by a milky coating through which a dark layer of colouring is discovered; the aperture exhibits a great deal of character, being of a pale yellow ground, distinguished by a rich purple-brown stain over which the radiating ridges are white.

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Species 118. (Mus. Hancock.)

**Buccion Grenlandicum.** _Buc._ testa oblongo-ovata, tenui, subventricosa, anfractibus superne lexiter angulatis, bicornatis, longitudinaliter subobscurè plicatis, plicis carinis super nodosis; columnellæ subindistincte plicatæ, labro subeffuso; rufescence-spadicea, epidermide viridi-flavæ partium indutæ.

**The Greenland Buccion.** Shell oblong-ovate, thin, somewhat ventricose, whorls slightly angulated round the upper part, two-keeled, longitudinally somewhat obscurely plicated, plaits nodulous in crossing the keels; columella somewhat indistinctly plaited, lip slightly effused; pale reddish fawn colour, partially covered with a greenish yellow epidermis.


_Hab._ West Coast of Davis's Strait; Warham and Harrison.

Another of the interesting additions made to this genus by Mr. Hancock through the dredging exertions of Messrs. Warham and Harrison of Newcastle on Tyne, in the locality above quoted.
### BUCCINUM

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**ERRATA.**

Plate V. Sp. 29,—for *B. ciliatum*, read *B. Molleri.*
Sp. 38,—for *B. plurinaulata*, read *B. plurinaulatum.*
Plate IX. Sp. 64,—for *B. Futoides*, read *B. spadiceum.*