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MONOGRAPH

OF THE GENUS

OLIVA.

"What hid'st thou in thy treasure-caves and cells,
Thou hollow-sounding and mysterious main?
[Pale glistering pearls, and rainbow-coloured shells,
Bright things that gleam unreck'd of, and in vain."—Mrs. Hemans.



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1.8.

Frederic Reeve imp

PLATE I.

Genus OLIVA, Bruguière.

Testa oblonga, lævis, subcylindracea, basi emarginata, spirå plerumque breviusculå, suturis peculiariter canaliculatis, columellå plicatå, plicis obscuris, variis, sæpè planulatis et callosis. Apertura elongata, angusta, interdum subpatula.

Shell oblong, smooth, somewhat cylindrical, emarginated at the base, spire generally rather short, with the sutures peculiarly canaliculated, columella plaited, plaits obscure, variable, often flattened and callous. Aperture elongate, narrow, sometimes rather wide.

The Olives are a very distinct group of mollusks, partaking of the characters of Cypræa and Ancillaria, but more of the latter than of the former genus. The shell, as may be gathered from its enamelled interior, is enveloped by certain parts of the animal, and like that of Cypræa is generally composed of two or more layers of different pattern. This variety of colouring is not, however, shown at different stages of the shell's growth as in Cypraa: it is only to be discovered by removing the outer coat with acid. Hence it may be inferred that the different coatings are deposited simultaneously during the formation of the shell, whilst the mantle is furled, so to speak, over the edge of the lip, and held in a state of tension by a cord which passes into the narrow sutural channel of the spire. Specimens of O. gibbosa and Brasiliensis are frequently sold by dealers with the outer coating removed to show the pattern beneath, in order to give them the appearance of other species.

The genus Oliva has generally been regarded as one of which the species are extremely difficult to determine. They have not proved so on examination. Species, like O. reticularis, for example, which differ very much in form, are distinguished by a marked peculiarity of pattern; and others, like O. inflata, which present an almost endless variety of pattern, are characterized by some peculiarity of form. In O. ispidula, which varies in an extraordinary degree both in form and pattern, the shell is constantly distinguished by the same particular colour in the interior, and there are several species, like O. cruenta, whose varieties are but so many different phases of the same idea of pattern.

The principal localities of this genus are Mauritius and the Philippine Islands in the eastern hemisphere, and Central America in the western. Out of a hundred species

described in the following monograph, the habitats of about seventy are determined .- Mauritius, Ceylon, the Molucca and Philippine Islands yield about twenty-five species, including the large and richly-coloured O. tremulina, erythrostoma, Olympiadina, nobilis, textilina, &c.; and Central America about thirty species. Fifteen of these are from Panama, Guayaquil, Nicaragua, Mexico, &c., among which are the giant O. porphyria, and the beautiful O. angulata, splendidula, polpasta, testacea, &c., and fifteen from the West Indies, all of which are small, with the single exception O. fusiformis. The most northern range of the genus is at Senegal, West Africa, where, of five species, two belong to distinct types, one, O. acuminata, having a representative on the coast of Sumatra in O. subula, and the other, O. hiatula, a representative at Real Llejos, Mexico, in O. testacea. At Zanzibar on the opposite shore of Africa is the characteristic O. inflata; and two very peculiar species, O. Indusica and Ancillarioides, are recorded from Kurrachee at the mouth of the Indus. Three species from the coast of Brazil, O. Brasiliensis, patula, and aquatilis, present forms which are quite peculiar to that locality. Only two species, of very different typical character, are recorded from the west coast of South America, one of tolerable size and extremely variable in colouring, O. Peruviana, the other of small dimension, O. columellaris. Three species are described from the Society and Feejee Islands, and two from Australia.

The following may be noted as peculiar instances of distribution. The only two species at present known from the Red Sea are identical with two inhabiting the West Indies, O. mutica and jaspidea. O. reticularis, inhabiting the Gulf of California, is found in a smaller state in the West Indies. O. Duclosi is found at the Philippines in the Eastern Seas, and at the Society Islands in the Pacific. O. kaleontina inhabits the Gulf of California, and also one of the Galapagos Islands. Lastly, we have a species, O. cruenta, from four different localities singularly remote from each other,—the Philippine Islands, Zanzibar, Australia, and the Society Islands.

Species 1. (Fig. a, b, Mus. Steere.)

OLIVA ANGULATA. Oliv. testå ovatå, ventricoså, crassissimå, ponderoså, supra medium angulato-tumidå, spirå breviusculå, columellå valdè calloså, planiplicatå, plicis ferè obsoletis; cinereo-albidå, olivaceo et griseo marmorată, strigis transversis nigricante-castaneis, acutè angulatis, hic illic longitudinaliter pictă, columellă pallide carneolă, roseo tinctă.

The angled Olive. Shell ovate, ventricose, very thick, ponderous, angularly swollen above the middle, spire rather short, columella very callous, flatly plaited, plaits almost obsolete; ash-white, mottled with olive and grey, longitudinally painted here and there with sharply angled transverse very dark chestnut streaks, columella pale carnelion tinged with rose.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 607.

Voluta incrassata, Dillwyn.

Eadem var. Oliva azemula, Duclos.

Hab. Gulf of Nicoiya, Central America (in sandy mud at the depth of nine fathoms); Cuming.

There is little variation in this fine species, which is distinguished from all others by its very thickened angular growth, and sharply zigzag bold splashes of colouring.

> Species 2. (Fig. a, Mus. Cuming; Fig. b, Mus. Steere.)

OLIVA PORPHYRIA. Oliv. testă cylindraceo-oblongă, ventricosă, peramplă, spiră brevi, subdepressă, apice elato, columella tumida, undique dense plicata, plicis paululum obscuris; violaceo-carnea, lineis ustulatorufis undique angulato-reticulata, maculis grandibus obscure bifasciata, columella basi violaceo tincta.

The porphyry Olive. Shell cylindrically oblong, ventricose, very large, spire short, rather depressed, apex raised, columella swollen, densely plaited throughout, plaits a little obscure; violet-flesh colour, angularly reticulated throughout with burnt-red lines, and obscurely two-banded with large blotches of the same colour, columella tinged at the base with violet.

Voluta porphyria, Linnæus, Syst. Nat. (12th edit.) p. 1187.

Oliva porphyria, Lamarck.

Cylinder porphyreticus, D'Argenville.

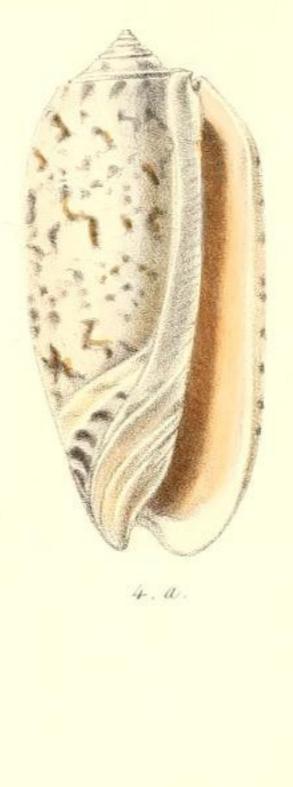
Hab. Panama (in sandy mud at low water); Cuming.

This fine species, the largest of the genus, is remarkably distinct from any other. From the peculiarity of its marking it has been long known as the 'Camp Olive.' Regarding the shell in the position in which it would be if the animal were placed with its head to the left of the observer, the interstitial spaces of the net-work have the appearance of a dense encampment of various-sized tents.



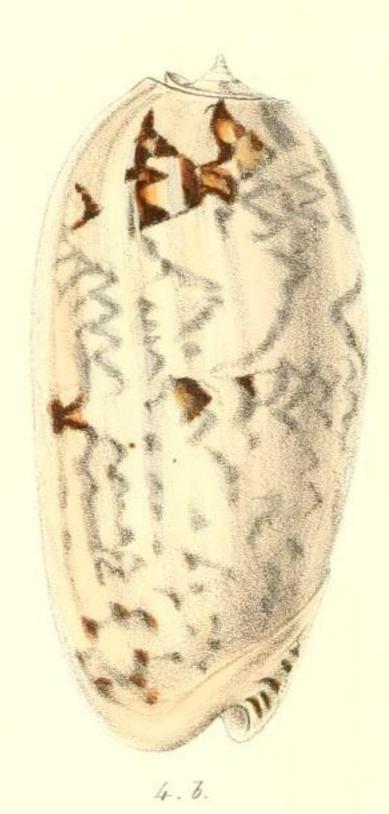












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PLATE II.

Species 3. (Fig. 3 a and 3 c, Mus. Steere; Fig. 3 b, Mus. Cole.)

Oliva nobilis. Oliva testă elongato-cylindraceă, crassiusculă, spiră sæpissime acuminato-exsertă, anfractibus prope ad suturas et ante medium subcontractis, plicis columellaribus vix numerosis, anterioribus fortiusculis; pallide lacteă, nigricante-fusco reticulate trifasciată et longitudinaliter undato-strigată, columellă et aperturæ fauce carneolo-lacteis.

The noble Olive. Shell elongately cylindrical, rather thick, spire most frequently acuminately exserted, whorls somewhat contracted near the sutures and before the middle, columellar plaits not very numerous, the front ones rather strong; pale cream-colour, reticulately three-banded and longitudinally wave-streaked with blackish-brown, columella and interior of the aperture carnelion cream-colour.

Hab. Mauritius.

In a genus of which the species are so nearly related, and the individuals of species so variously painted, opinions must necessarily differ greatly as to the value and limit of specific character. Although it has been my endeavour to restrict the number of species where an observation of many specimens shows them to have been founded upon varieties, I cannot bring my mind to believe that the shell under consideration, which has been referred sometimes to O. tremulina and sometimes to O. erythrostoma, belongs to either species. Not uncommon in collections, and easy of recognition, it is uniformly of larger and more solid growth than its congeners, and of a pale carnelion cream-colour, richly banded and blotched in network style with dark brown, the brown being blue-clouded as in other species. M. Duclos gives a very characteristic

figure of it under *O. erythrostoma*, at Pl. 31. f. 7, and two rather indifferent figures of it under *O. tremulina*, at Pl. 11. f. 5 and 7, of his monograph.

Species 4. (Fig. a, Mus. Cole; Fig. b, Mus. Steere.)

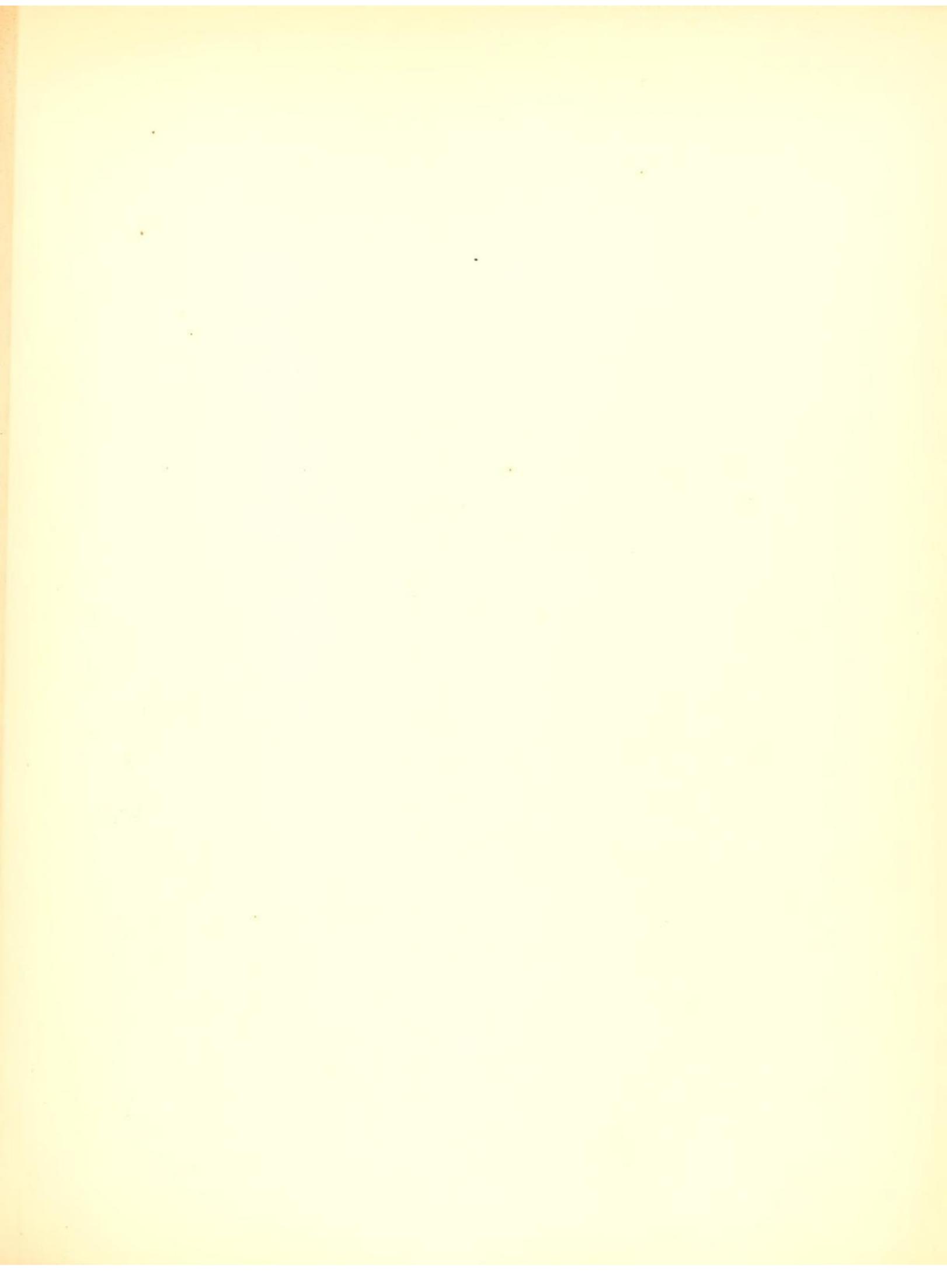
OLIVA PONDEROSA. Oliv. testá oblongo-cylindraceá, crassá, obesá, spirá parum exsertá, anfractu ultimo apicem versus plus minus producto, plicis columellaribus subnumerosis, partim evanidis; lacteá, strigis undatis aut reticulatis brevibus interruptis obscurè cærulescentibus aut violaceis, hic illic fuscis, sparsim pictá, columellá et aperturæ fauce carneolo-albis, aperturá interdum carneo-rufescente tinctá.

The ponderous Olive. Shell oblong-cylindrical, thick, stout, spire but little exserted, last whorl more or less produced towards the apex, columellar plaits rather numerous, but partially faded; cream-white, sparingly painted with obscure bluish or violet short interrupted streaks, here and there brown and reticulated, columella and interior of the aperture carnelion-white, aperture sometimes tinged with fleshpink.

Duclos, Mon. Oliv. Pl. 15. f. 8 and 9. Hab. Mauritius.

This fine species is distinguished from the preceding and allied forms, by its solid structure and by the produced growth of the last whorl at its hind extremity, where it rises into a callosity above the suture after the manner of *O. maura*. The painting consists of scattered interrupted brown streaks, reticulated in places, obscured into a bluish violet or milky aspect, by an overcharge of the same colourless enamel as the ground.







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PLATE III.

Species 5. (Fig. a, c, and e, Mus. Cole; Fig. b, Mus. Steere, and Fig. d, Mus. Cuming.)

OLIVA OLYMPIADINA. Oliv. testă oblongo-cylindraceă, crassă, infra suturas subcontractă, spiră exsertă, anfractu ultimo ad extremitatem posticam aperturæ calloso-producto, plicis columellaribus plus minus evanidis; albă, purpurascente-fusco subobscurè dilutè reticulată, intensè fusco sæpè perampliter maculată, columellă et aperturæ fauce albis.

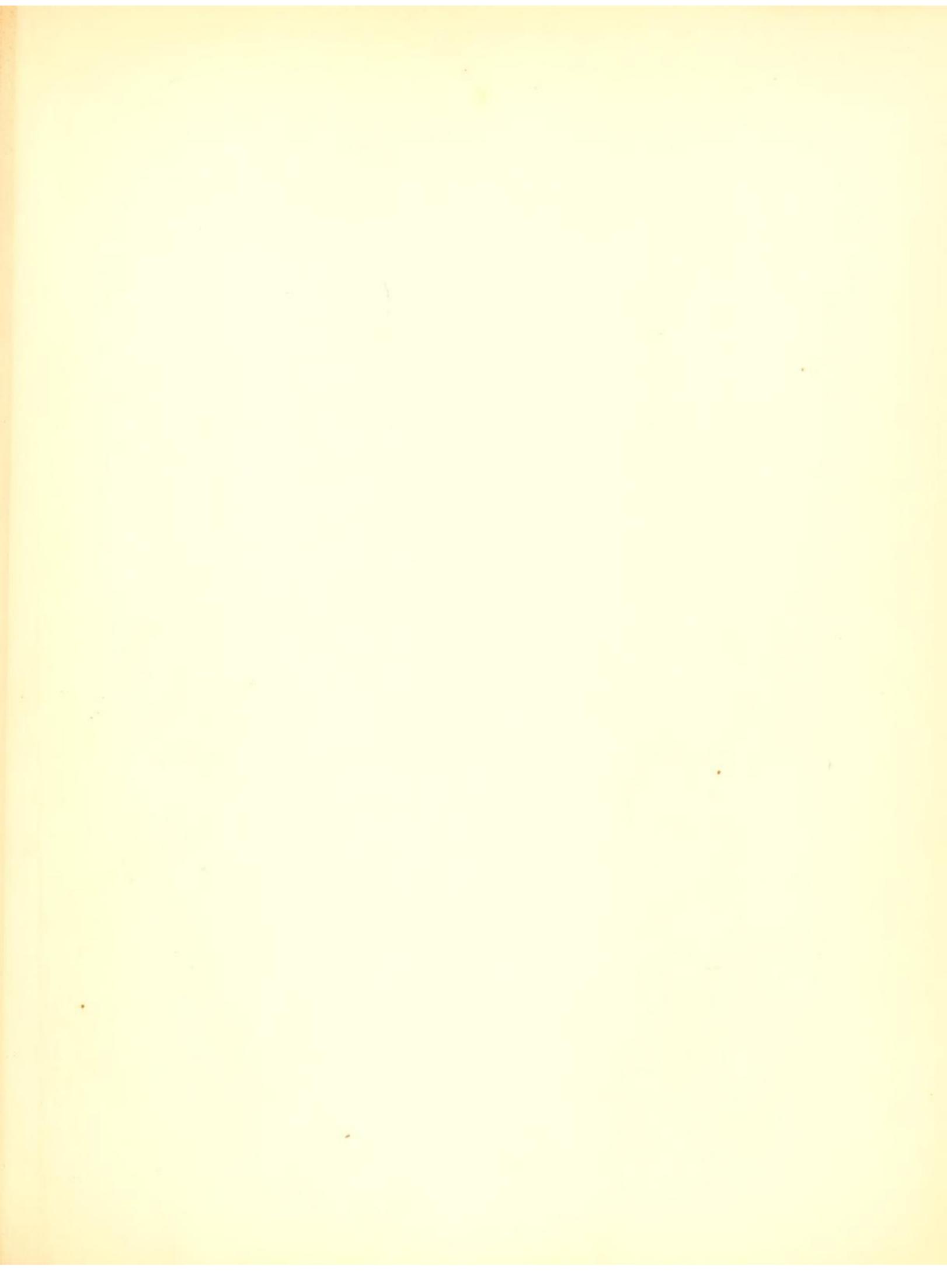
The Olympian Olive. Shell oblong-cylindrical, thick, slightly contracted beneath the sutures, spire exerted, last whorl callously produced at the hind extremity of the aperture, columellar plaits more or less faint; white, somewhat obscurely dilutely reticulated with purplish-brown, often very largely blotched with dark brown, columella and interior of the aperture white.

Duclos, Mon. Oliv. pl. 12. f. 10 to 12. Hab. Mauritius.

A magnificent series of about two hundred specimens,

all of this species, collected at the Island of Mauritius by Miss Cole, has enabled me to trace the connection of its varieties with great accuracy. As represented at Fig. 5 & and Fig. 5 e, the shell is faintly mottled throughout with light milky-purplish net-work, interrupted with two broken bands of scattered brown blotches. In the variety Fig. a the brown increases in quantity, the faint mottling is broken up, and, except on the under surface of the shell, is almost obliterated. In the shell represented at Fig. 5 d the brown is richer, more largely blotched, and the interstices between the blotches present only very faint indications of the mottled net-work. The species approaches very nearly in this state to the dark variety of O. tremulina, Fig. 5 c, which in being introduced in this plate was thought to belong to it. O. Olympiadina is always to be distinguished in addition to the above-named characters by the pure white enamel of the interior and columella, which latter is always more callous. The ground is always pure white, and even the dark brown painting is not unfrequently over-laid by a very thin milky coating of the same.











6. d.



6.c.



6.8.



6.€.

PLATE IV.

Species 6. (Fig. a, c, and d, Mus. Steere; Fig. b, Mus. Cole, and Fig. e, Mus. Cuming.)

OLIVA TREMULINA. Oliv. testă subelongato-cylindraceă, anfractibus postice et ante medium leviter contractis, apice exserto, plicis columellaribus anterioribus fortiusculis; carneolo-albă, nigricante-fusco interrupte trifasciată et dilute longitudinaliter strigată, strigis caruleo-nebulatis, valde confusis, interdum undique intense fuscă, hic illic carneolo-albo interruptă, columellă et apertura fauce albidis, plerumque carneorufescente tinctis.

The trembling Olive. Shell somewhat elongately cylindrical, whorls slightly contracted posteriorly and before the middle, apex exserted, front columellar plaits rather strong; carnelion-white, sometimes three-banded with dark brown, and painted longitudinally with blue-clouded streaks very much confused, sometimes dark brown throughout, interrupted

here and there with carnelion-white, columella and interior of the aperture whitish, generally tinged with flesh-red.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 607. Hab. Mauritius and Philippine Islands.

This well-known species has mostly a carnelion-rouge tinge, but not a positive red interior as in O. erythrostoma. The specimens figured at 6 c, d, e, represent the ordinary state of it, densely clouded throughout with blue-shaded streaks and obscurely three-banded with dark-brown blotches. In Fig. a, b, the shell is entirely brown except in a few scattered patches, in which state it passes into the variety represented in the preceding plate at Fig. 5 c. This last variety, of which M. Duclos represents a characteristic specimen at Pl. 11. f. 8 of his monograph, is generally of larger size and of more solid growth, presenting almost sufficient character to be regarded as a distinct species.























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Frederic Roeve imp.

PLATE V.

Species 7. (Fig. a, e, f, g, Mus. Cuming; Fig. b, c, d, Mus. Steere.)

OLIVA ERYTHROSTOMA. Oliv. testá oblongo-cylindraceá, crassiusculá, spirá exsertá, anfractibus posticè sæpè tumidis, ad suturas contractis, plicis anticis columellaribus fortiusculis; carneolo-albá, cæruleo-viridi, vel olivaceo, vel purpureo nebulato-strigatá et trifasciatim maculatá, nonnunquam intensè fusco maculatá vel omnino fuscá, columellá labroque carneolo-albis, aperturæ fauce vividè rufá.

The Red-Mouth Olive. Shell oblong-cylindrical, rather thick, spire exserted, whorls often swollen posteriorly, contracted at the sutures, front columellar plaits rather strong; carnelion-white, cloud-streaked and three-banded with blue-green, or olive, or purple, sometimes blotched with dark brown or altogether brown, lip and columella carnelion-white, interior of the aperture deep red.

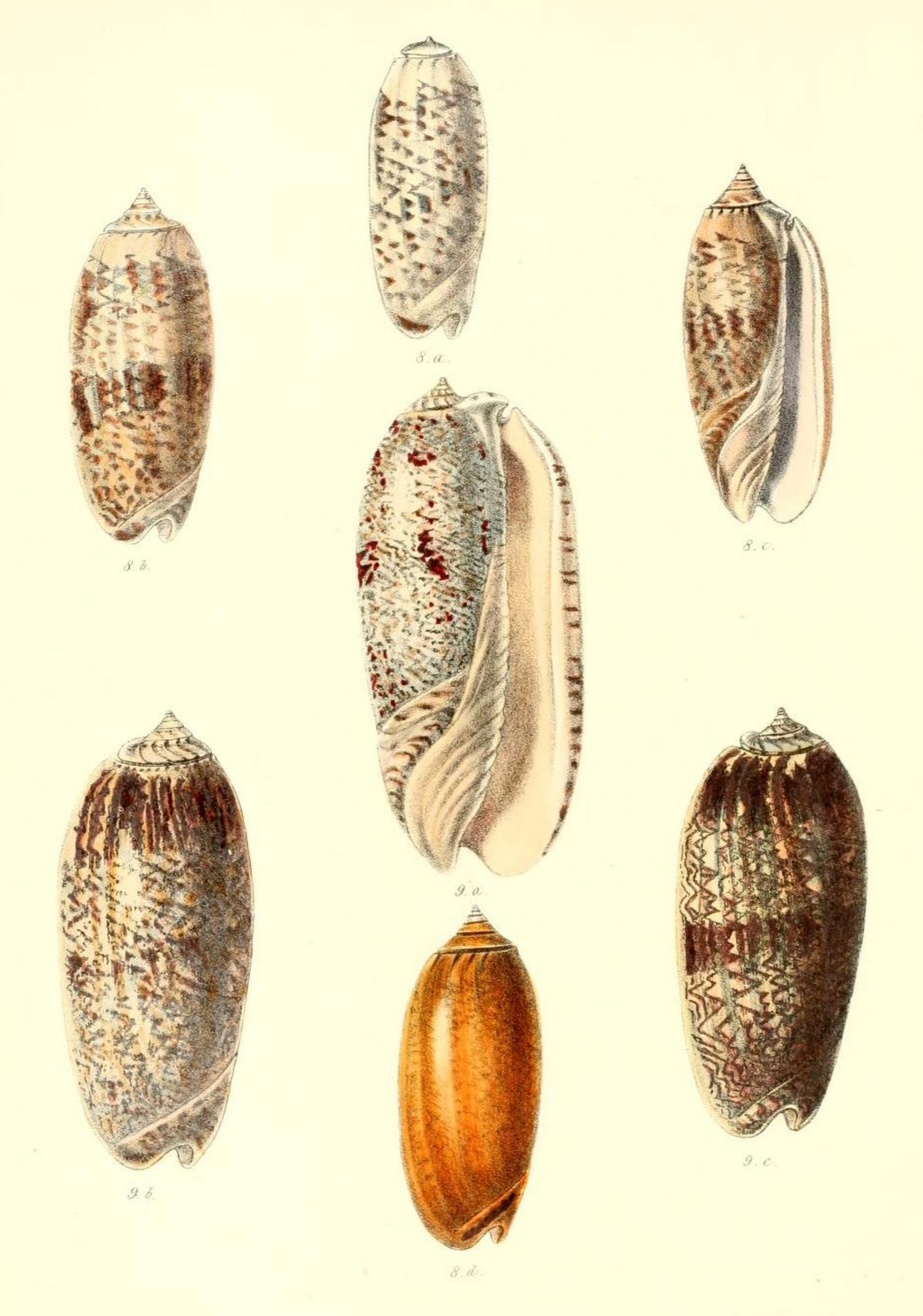
Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 606.

Hab. Fig. α, g, Ceylon. Fig. e, f, Island of Mindanao, Philippines (sandy mud, in deep water); Cuming.

This fine species is distinguished from O. tremulina, its nearest ally, first, in the aperture being stained with deep red, secondly, in being mostly rather swollen posteriorly beyond the middle, and, thirdly, in exhibiting a greater variety of colouring in the painting. At Fig. a, g, the painting is simply purple-lake upon a white ground. At Fig. b the ground is carnelion, and the painting is of purple-lake shaded with a rich golden yellow. represents a very richly painted dark olive-brown, blueshaded upon a carnelion ground. At Fig. d the streaks are of a milky blue-green shaded with the same golden yellow as in the purple variety b. Fig. e is a variety very richly painted with dark in miscellaneous angular blotches, neither streaked, nor disposed in bands; and Fig. f is almost an uninterrupted brown, obscurely banded. These figures illustrate only a few of the most striking varieties of this beautiful species, which might be considerably added to if space permitted.







Sowerby, del et lith

Frederic Roeve, imp.

PLATE VI.

Species 8. (Fig. a, b, d, Mus. Steere; Fig. c, Mus. Cuming.)

Oliva irisans. Oliv. testā elongato-cylindraceā, subangustā, spirā nunc acuminato-exsertā, nunc brevi, plus minus callosā, plicis columellaribus interdum subevanidis; albā vel carneolo-albā, strigis linearibus purpureolivaceis, viridi luteoque nebulatis, acutè undatis, plus minus bifasciatim reticulatis, nitide pictā, nonnunquam luteo-fusco aut nigricante omnino indutā, anfractuum margine spirali fusco punctato, columellā pallide carneolā, aperturæ fauce cærulescente-albā.

The irdescent Olive. Shell elongately cylindrical, rather narrow, spire sometimes acuminately exserted, sometimes short and more or less callous, columellar plaits not unfrequently rather faint; white or carnelion-white, neatly painted with purple-olive linear streaks, clouded with green and yellow, sharply waved, and more or less reticulately two-banded, sometimes altogether covered with yellow-brown or blackish, spiral edge of the whorls brown-dotted, columella pale carnelion, interior of the aperture bluish-white.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. x. p. 610.

Hab. Mauritius.

This appears to be a very well defined species, allied to O, tremulina, but uniformly of smaller size and narrower. The spire, mostly exserted, is sometimes short, buried nearly to the apex, as in Fig. a, by a callous deposit of enamel. The painting is distributed in a scattered interrupted zigzag style, rarely or never blotched, though mostly aggregated in bands about the middle and posterior portion of the shell. In Fig. b and c the streaks are dark olive, clouded, iris-like, with blue-green and yellow upon a warm carnelion ground. In Fig. a the shell is pure

white, and the painting simple blue-purple. In Fig. d the pattern is entirely overlaid with a uniform yellow-brown coat, which in some specimens is nearer black.

Species 9. (Fig. a, c, Mus. Steere; Fig. b, Mus. Cuming.)

OLIVA TEXTILINA. Oliv. testă oblongo-cylindraceă, latiusculă, crassă, spiră breviusculă, anfractu ultimo in callositate ad extremitatem posticam aperturæ producto, plicis columellaribus fortiusculis; carneolo-albă, punctis lineisque punctorum nigris, angulato-reticulatis, interdum subpromiscuis, cinereo-nebulatis, plus minus saturate bifasciatis, undique pictă, columellă et aperturæ fauce vivide carneolis.

The fine-textile Olive. Shell oblong-cylindrical, rather broad, thick, spire rather short, last whorl produced into a callosity at the posterior end of the aperture, columellar plaits rather strong; carnelion-white, painted throughout with black dots and lines of dots, angularly reticulated, sometimes rather promiscuous, ash-clouded, more or less darkly aggregated into two bands, columella and interior of the aperture bright carnelion.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 606.

Hab. Islands of Ticao and Mindanao, Philippines (sandy mud in deep water); Cuming.

There is perhaps less variety in this species than in any other of the genus, the pattern consisting always of an angular ash-clouded net-work of dark dots, sometimes very regular and close-set, but more frequently promiscuous and confused in its arrangement. The shell is generally of large size, thick, and rather broad, the last whorl rising upon the spire into a callosity.







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PLATE VII.

Species 10. (Fig. 41 a, b, c, d, f, g, Mus. Steere; Fig. e, Mus. Cuming.)

OLIVA MAURA. Oliv. testā oblongo-ovatā, crassā, posticē tumidiusculā, juxta suturas contractā, spirā subdepressā, anfractu ultimo ad extremitatem posticam aperturæ in callositate erectā producto, plicis columellaribus subplanulatis, labro subplicato; cinereo-carneolā vel intensē olivaceā, vel nigrā, immaculatā aut fusco angulato-strigatā aut fulguratā, strigis interruptis, brevibus, interdum saturatē bifasciatis, columellā albā, basi pallidē sanguineo tinctā, aperturæ fauce cærulescente-albā.

The Moor Olive. Shell oblong-ovate, thick, rather swollen posteriorly, contracted next the sutures, spire rather depressed, last whorl produced at the posterior end of the aperture into an erect callosity, columellar plaits somewhat flattened, lip subplicate; ashcarnelion, or dark olive or black, sometimes unspotted, sometimes mottled with brown angular streaks, or lightning-marked, the streaks being interrupted, short, sometimes amalgamated darker with two bands, columella white, faintly tinged at the base with blood-red, interior of the aperture bluish-white.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. x. p. 608.

Varietates.

Oliva fulminans, sepulturalis, and funebralis, Lamarck.
Oliva leucostoma and Macleaya, Duclos.

Hab. Ceylon, Mauritius, Philippines.

This species is extremely variable in its style of painting except in one important point, the base of the columella, which is, with rare exception, tinged with a blush of red. In other respects it varies chiefly as represented in the accompanying plate. Fig. e and f may be regarded as Lamarck's type of the species, dark black or olive, uniform and unspotted, while the zigzag lightning-marked pattern at Fig. b is his O. fulminans. The shell Fig. a, with black splashed bands and waved streaks, upon a mottled-olive ground, represents Lamarck's O. funebralis and Duclos' O. lencostoma; those at Fig. c and g with two obscure bands upon a mottled-olive ground, often lighter than here represented, the O. Macleaya of Duclos; and the rich dark-olive variety with scattered indications of bands and waved streaks constitutes Lamarck's O. sepulturalis.

The Oliva Maura is mainly distinguished by its constancy of form, having always the same tumid growth towards the spire, which is rather depressed, and the same produced callous production of the last whorl at the posterior end of the aperture.





















Sowerby del at lith

13. a.

Frederic Roeve ump.

PLATE VIII.

Species 11. (Fig. a, Mus. Steere; Fig. b, c, Mus. Cuming.)

Oliv. testă fusiformi-ovată, crassissimă, postice tumidă, spiră subamplă, exsertă, plicis columellaribus posticis subevanidis; albă, rufescente-spadiceo undique longitudinaliter fulgurată, interdum bifasciată, columellă et aperturæ fauce eburneis.

The fusiform Olive. Shell fusiformly ovate, very thick, swollen posteriorly, spire rather large, exserted, posterior columellar plaits rather faint; white, longitudinally zigzag-streaked with reddish-fawn, sometimes two-banded, columella and interior of the aperture ivory-white.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. x.p. 618. Hab. West Indies.

A very distinct species of stout solid growth, belonging to the same type as O. reticularis and Julieta, in which the pattern is gathered along the spiral edge of the whorls into points of a darker colour.

Species 12. (Fig. a, Mus. Steere; Fig. b, Mus. Cuming.)

OLIVA GIBBOSA. Oliv. testă fusiformi-ovată, obesă, crassissimă, valde callosă, spiră acuminată, columellă valde callosă, plicis fere occultis; cæruleă aut flavicante, nebulosă aut strigată, fasciă luteă conspicuă, nigricantefusco maculată ad basin, spiră et columellă luteo-albidis, aperturæ fauce cærulescente-albă.

The gibbous Olive. Shell fusiformly-ovate, stout, very thick, very callous, spire acuminated, columella very callous, plaits almost buried; blue or pale yellow, mottled or streaked, with a conspicuous black-

spotted yellow band at the base, spire and columella yellowish-white, interior of the aperture bluish-white.

Voluta gibbosa, Born, Mus. Vind. p. 215.

Oliva cingulata, Chemnitz.

Voluta utriculus pars, Gmelin.

Oliva utriculus, Chemnitz.

An eadem var.? Oliva nebulosa, Lamarck. Hab. Africa.

This and the following species are both remarkable for the callous deposit of enamel on the columella, which extends to and almost covers the spire.

Species 13. (Fig. a, b, Mus. Steere.)

Oliva Brasiliensis. Oliv. testă subtrigono-ovată, crassissimă, solidă, spiră plano-depressă, apice subacută, columellă valde callosă, plicis fere occultis; fulvo-spadiceă, albo strigată, lineis fuscescentibus capillaribus interruptis sub-lente transversim notată, zonă lată saturatiore ad basin.

The Brazilian Olive. Shell somewhat triangularly ovate, rather thick, solid, spire flatly depressed, rather sharp at the apex, columella very callous, the plaits almost buried; fulvous-fawn, streaked with white, transversely marked, beneath the lens, with brown interrupted hair lines, and with a broad darker zone at the base.

CHEMNITZ, Conch. Cab. vol. x. pl. 147. f. 1367, 1368.

Voluta pinguis, Dillwyn.

Hab. Brazil.

A shell of very solid growth, remarkably characterized by its depressed callous spire.

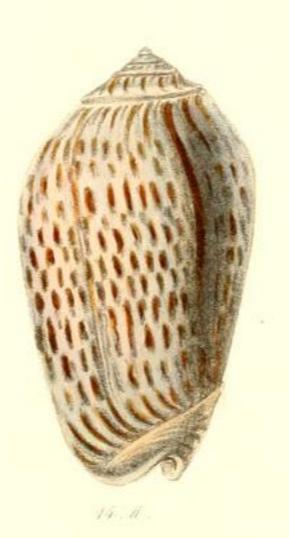


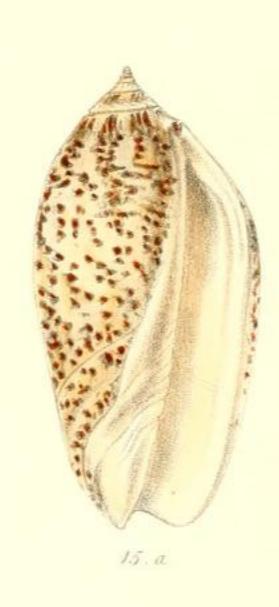
















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PLATE IX.

Species 14. (Fig. a, b, c, e, Mus. Cuming; Fig. d, Mus. Steere.)

OLIVA PERUVIANA. Oliv. testă ovată, crassă, gibbosă, postice tumidă, interdum annulată, spiră breviusculă, columellă basin versus plicată, supră lævigată; purpurascente vel purpurascente-albă, purpureo-castaneo longitudinaliter fulgurată aut strigato-punctată, interdum immaculată, interdum omnino purpureo-castaneă, columellă albă, aperturæ fauce purpurascente tinctă.

The Peruvian Olive. Shell ovate, thick, gibbous, swollen posteriorly, sometimes annulated, spire rather short, columella plaited towards the base, smooth above; light purple or purplish white, longitudinally zigzag-marked or streak-dotted with purple-chestnut, sometimes unspotted, sometimes entirely purple-chestnut, columella white, interior of the aperture tinged with purple.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 617. Eadem var. Oliva Senegalensis, Lamarck.

Hab. Coquimbo, Copiapo, and Bay of Callao, Peru (in sandy mud, at depths varying from four to seven fathoms); Cuming.

The specimens selected for the illustration of this species are particularly characteristic of its varieties of painting, in which only two colours are employed. At Fig. a the shell is purplish-white, unspotted, whilst that at Fig. c is of a uniform dark purple-chestnut. At Fig. b the chestnut appears in bold distant zigzag stripes upon a light purple ground, which state of the species was named O. Senegalensis by Lamarck, from some erroneous information of its locality. Fig. d represents a variety with more of the chestnut colouring, broken up as it were into dots and short interrupted streaks; whilst in the shell represented at Fig. e the chestnut appears in very promiscuous and still smaller dots, overcharged with a general tinge of the same colour.

The form of this species varies in being sometimes very tumid, and produced into a ring towards the spire as indicated at Fig. c.

Species 15. (Fig. a, Mus. Steere; Fig. b, Mus. Cuming.)

OLIVA JULIETA. Oliv. testă ovată, crassiusculă, medio tumidă, deinde spiram versus attenuată, columellă multiplicată, basi calloso-gibbosă; lutescente-albă, punctis grandibus nigricante-fuscis, cæruleo-nebulatis, interrupte angulate dispositis, undique vivide pictă, fusco in maculis acuminatis juxta suturas, apice pallide violaceo, basi maculă violaceă obscure tinctă, columellă et aperturæ fauce lutescente-albis.

JULIET'S OLIVE. Shell ovate, rather thick, swollen in the middle, then attenuated towards the spire, columella many-plaited, callously gibbous at the base; yellowish-white, brightly painted throughout with large blue-clouded black-brown dots, arranged in confused or broken angles, the brown rising in acuminated blotches next the sutures, apex pale violet, base obscurely marked with a faint violet blotch, columella and interior of the aperture yellowish-white.

Duclos, Mon. Oliv. pl. 16. f. 3 and 4.

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

This beautiful species bears the same relation to O. reticularis, through the variety named O. venulata by Duclos, represented at Fig. 16 b in the next plate, as O. nobilis has with O. tremulina. Regarded separately, the allied forms in both instances appear specifically distinct from each other, but it is impossible to deny that there is only one prevading idea of form and pattern in each. The typical pattern of O. reticularis is a net-work composed of brown dots, gathered into lines or acuminated blotches at the sutures. The dots become larger, more confused or broken up, and more conspicuous, as in the variety O. venulata, Duclos; and the character of this passes by an easy transition into O. Julieta, distinguished by the same hieroglyphical marking at the base, and an indication of the violet blotch which is very characteristic throughout the series.







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PLATE X.

Species 16. (Fig. a, b, c, e, g, i, Mus. Cuming; Fig. d, f, h, Mus. Steere.)

OLIVA RETICULARIS. Oliv. testă ovată, vel oblongă, vel elongato-cylindraceă, interdum postice tumidă, apice exsertiusculă, plicis columellaribus numerosis, plurimis sæpe evanidis; albidă aut cinerascente, fusco aut nigricante-fusco profuse acute punctato-reticulată, reticulă ad suturas lineată aut acuminată, columellă ad basin plerumque plus minus violaceo-fusco tinctă, aperturæ fauce albidă.

The reticulated Olive. Shell ovate, or oblong, or elongately cylindrical, sometimes swollen posteriorly, apex rather exserted, columellar plaits numerous, many of them frequently obscured; whitish or paleash, painted with a brown or black dotted net-work, which is gathered at the sutures into lines or acuminated blotches, columella mostly stained more or less with violet-brown, interior of the aperture whitish.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 613. Varietates.

Oliva araneosa, Lamarck.

Oliva Timoria, venulata, obesina, and pindarina, Duclos.

Hab. Gulf of California; Donnet. Island of Granada,

West Indies; J. Cuming.

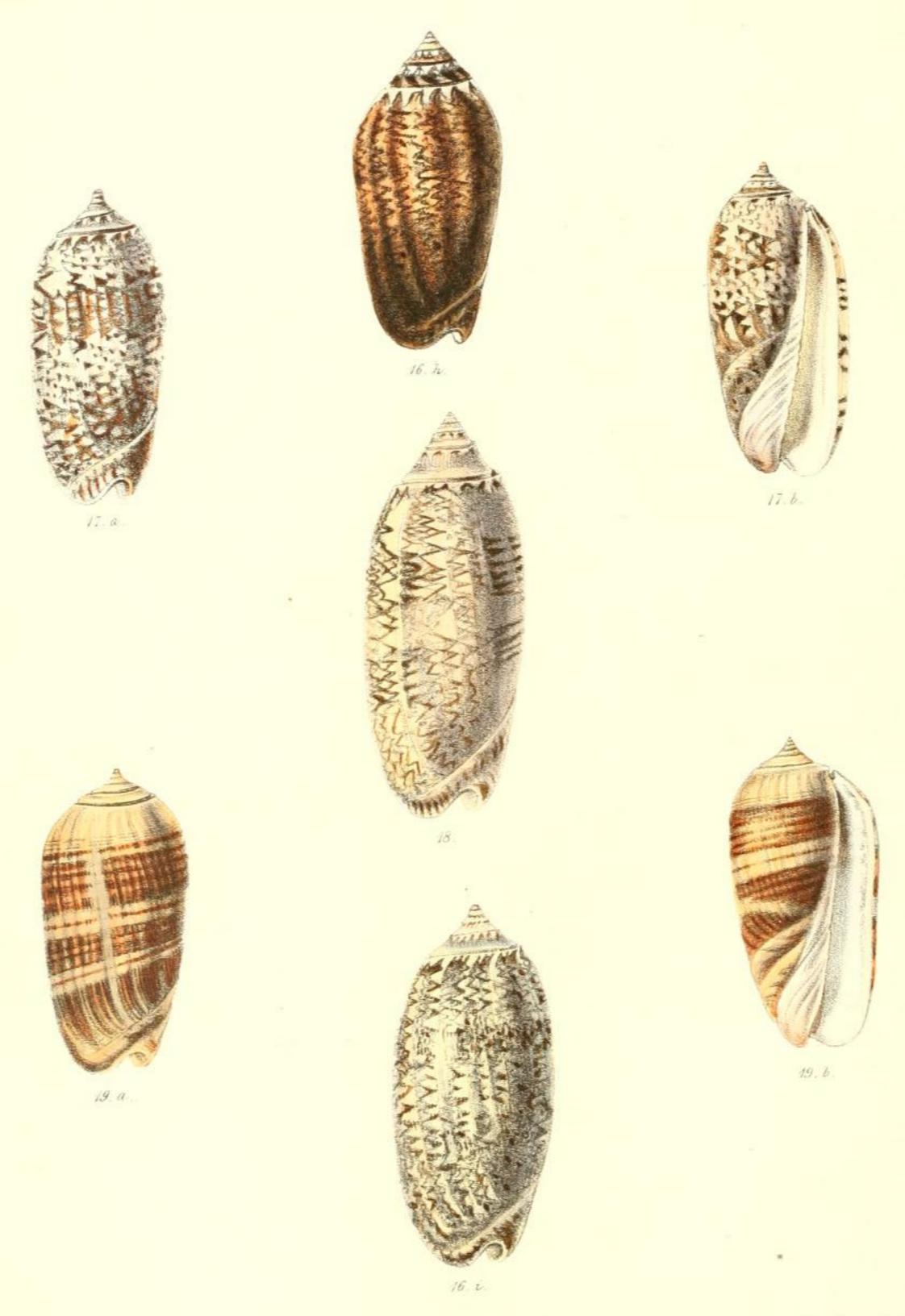
The specimens represented in the accompanying plate are selected with the view of illustrating the different phases of this extremely variable species, that have been

distinguished by other specific names. Fig. a is Lamarck's type O. reticularis, narrow in its proportions, and mostly of smaller size, with the net-work more spaced, after the manner of O. flammulata, and the sutural lines of pattern more prolonged. Fig. b represents Duclos' O. venulata, in which the net-work is broken up into large blotches, and the basal violet-brown blotch rather prominent. Fig.c. is the O. obesina of the same author, stouter and more gibbous in form, with the net-work somewhat similar but more or less obscured by an overcharge of milky-white enamel. Fig. d, the finest state of the species, of which a dark chestnut-coated variety is represented below at Fig. g, is Lamarck's O. araneosa, and has the net-work small, crowded, and confused. Fig. e, a remarkable form, in which the posterior portion of the shell is very stout and swollen, and the pattern small, confused, and partially banded, is Duclos' O. Timoria, though certainly not an inhabitant of Timor. Lastly, the oblong contracted variety, Fig. f_s is the O. pindarina of the same author.

Besides the above-mentioned named varieties, are two very characteristic states of the species, Fig. h, i, in Pl. XI. In the former the net-work is peculiarly waved, and in parts is over-coated with streaks of bright chestnut; in the latter the shell is of a peculiar oblong-cylindrical form, and the net-work is small, confused, and aggregated in bands. This variety is not far removed from O. splendidula.







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PLATE XI.

Species 17. (Fig. a, b, Mus. Cuming.)

OLIVA SPLENDIDULA. Oliv. testă cylindraceo-oblongă, spiră breviusculă, apice elato, plicis columellaribus subdistantibus; cinereo-albicante, fasciis duabus, alteră supra medium, alteră basali, maculis trigonis fuscis reticulatis, cingulată, fasciarum interstitiis fusco-nigro sparsim punctatis et maculatis, apice basique purpureo-violaceis, aperturæ fauce lutescente-albă.

The splended Olive. Shell cylindrically oblong, spire rather short, apex raised, columellar plaits rather distant; ash-white, encircled with two bands, composed of triangular reticulated brown spots, one above the middle, the other basal, interstices between the bands sprinkled with black-brown spots and blotches, base and apex purple-violet, interior of the aperture yellowish-white.

Sowerby, Tankerville Catalogue, App. p. 32.

Hab. Island of Tobago, Bay of Panama (in sandy mud at low water); Cuming.

This fine species belongs to the same type as the preceding, O. reticulata. It is distinguished by a peculiarity of marking, which is constant in all specimens, consisting of two broad confused brown bands, of which the interstices are sprinkled with curved linear dots and triangular blotches. The spire is short and rounded, with the apex raised, which, together with the base of the columella, is tinged with purple-violet.

Species 18. (Mus. Cuming.)

Oliv. testă elongată, spiră exsertă, plicis columellaribus interdum suboccultis; pallide spadiceă, lutescente partim tinctă, reticulă fuscă subamplă, acute trigonă, bifasciatim disposită, hic illic characteribus castaneis inscriptă, ornată, columellă albă, aperturæ fauce vivide violaceă.

THE LETTERED OLIVE. Shell elongated, spire exserted,

columellar plaits sometimes rather concealed; light fawn-colour, partially tinged with yellow, ornamented with a rather large brown net-work, sharply triangular, disposed so as to show two bands, marked here and there with chestnut characters, columella white, interior of the aperture deep violet.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 614. Hab. West Indies.

Belonging also to the type of *O. reticulata*, to which species it more closely approximates than *O. splendidula*. In form it is peculiarly elongated, the net-work is of rather a large flame-pattern, showing two bands, which are marked here and there with dark characters. The aperture is characterized by a deep tinge of violet.

Species 19. (Mus. Cuming.)

Oliva Cumingii. Oliv. testă cylindraceo-oblongă, postice tumidă, rotundată, spiră brevi, apice subexserto, acuto, plicis columellaribus planulatis, suboccultis, columellă basi tumidă; aurantio-croceă, castaneo et nigricante-fusco, immaculato, varie fasciată, columellă basi livido-purpurascente pallide tinctă, aperturæ fauce cærulescente-albă.

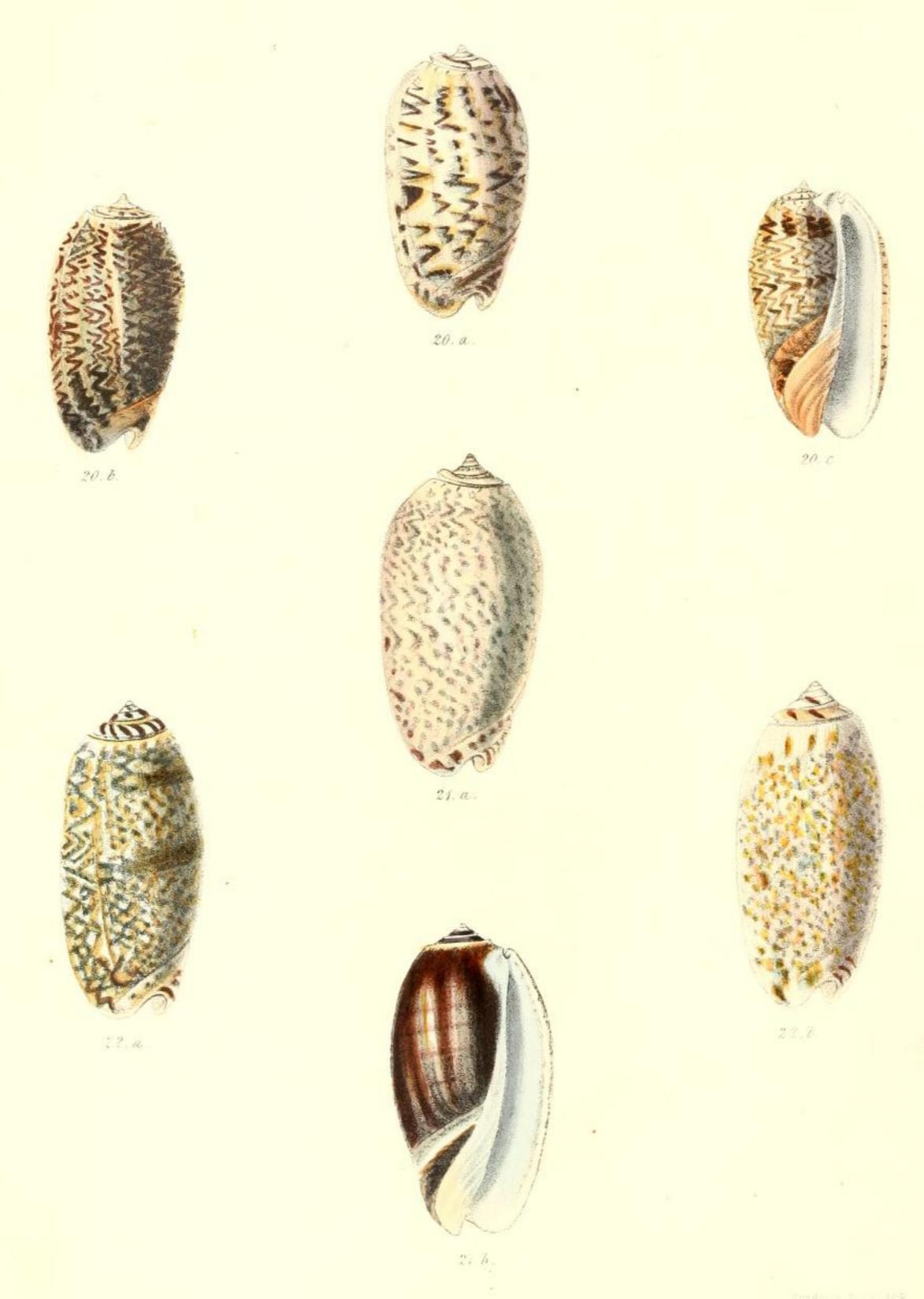
Cuming's Olive. Shell cylindrically oblong, swollen posteriorly, rounded, spire short, apex rather exserted, sharp, columellar plaits flattened, almost concealed, columella swollen at the base; orange-saffron colour, variously banded with unspotted chestnut and blackish-brown, base of the columella faintly tinged with livid-purple, interior of the aperture bluish-white.

Hab. Gulf of California; Donnet.

This appears to be very distinct from any species yet described, and is remarkable for the absence of any pattern of marking in the painting, which is of a warm orange-saffron hue, simply cross-banded.







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PLATE XII.

Species 20. (Fig. a, b, c, Mus. Steere.)

Oliv. testă cylindraceo-ovată, medio tumidiusculă, spiră brevi, anfractu ultimo ad extremitatem posticam aperturæ in callositate erectă producto;
virescente aut lutescente-albă, strigis olivaceo-viridibus,
cæruleo et croceo-rufo nebulatis, interdum fusco-nigro
acute promiscue undată, columellă basi pallide sanguineo tinctă, aperturæ fauce cærulescente-albă.

The elegant Olive. Shell cylindrically ovate, rather swollen in the middle, spire short, last whorl produced into an erect callosity at the posterior end of the aperture; greenish or yellowish-white, sharply promiscuously waved with olive-green or brown-black streaks, clouded with blue and saffron-red, columella faintly tinged at the base with a blush of blood-red, interior of the aperture bluish-white.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 611.

Hab. Feejee Islands.

This species is chiefly distinguished from those which accompany it in the plate, by its shorter and more tumid growth, and the erect callous production of the last whorl upon the spire, which is proportionably depressed. The specimen represented at Fig. a is promiscuously waved with dark green broken streaks, clouded with blue and saffron-red; that at Fig. b, c presents the same colouring overlaid with a profusion of rich black-brown zigzag streaks.

Species 21. (Fig. a, b, Mus. Steere.)

Oliva tigrina. Oliva testă cylindraceo-ovată, medio tumidă, subinflată, spiră brevi, anfractu ultimo ad extremitatem posticam aperturæ calloso-producto, plicis columellaribus plus minus occultis; cinerascente-albă, maculis parvis cærulescente-griseis profuse marmorată, interdum nigro-fusco omnino indută, columellă basi pallide sanguineo tinctă, aperturæ fauce cærulescentealbă.

THE TIGER-SPOTTED OLIVE. Shell cylindrically-ovate, swollen in the middle, rather inflated, spire short, last whorl callously produced at the posterior end

of the aperture, columellar plaits more or less faint; ashy white, profusely mottled with small blue-grey spots, sometimes covered entirely with black-brown, columella faintly tinged at the base with a blush of blood-red, interior of the aperture bluish-white.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 623.

Hab. Madagasear.

Distinguished mainly by its swollen growth, being uniformly of larger size than the preceding species, and by its livid grey aspect of colour, except when altogether black-brown, as it not unfrequently is.

Species 22. (Fig. a, b, Mus. Steere.)

Oliva Tricolor. Oliva testă cylindraceo-oblongă, interdum subangustă, spiră breviusculă, peculiariter callosă, plicis columellaribus basin versus fortiusculis; albidă aut virescente, cæruleo et croceo-rufo profuse nebulată, viridi marmorată et fasciată, spiră nigro oblique tessellată.

The tri-coloured Olive. Shell cylindrically oblong, sometimes rather narrow, spire rather short, peculiarly callous, columellar plaits rather strong towards the base; whitish or greenish, profusely clouded with blue and saffron-red, marbled and banded with green, spire obliquely tessellated with black, base of the columella tinged with a blush of blood-red, interior of the aperture white.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 615.

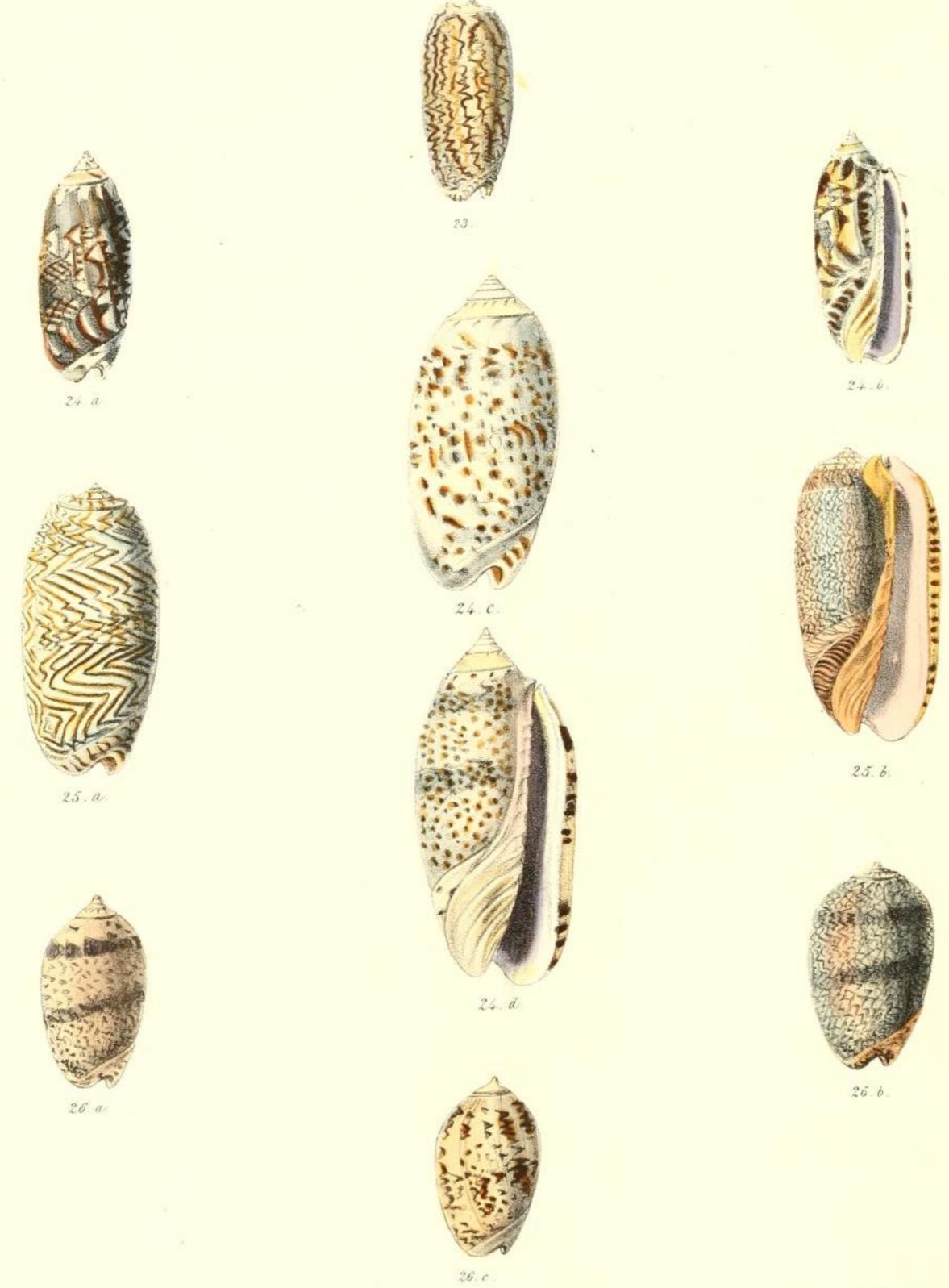
Varietas. O. Philantha, Duclos.

Hab. Mauritius.

The colouring of this species consists of a profuse mottling of clouded blue and saffron-yellow spots, with, in most specimens, a large proportion of green, showing two bands, one round the middle of the shell, and one beneath the sutures; but the most characteristic feature of the species consists in the spire being obliquely tessellated with black, and a slight mixture of saffron-red.







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PLATE XIII.

Species 23. (Mus. Steere.)

OLIVA MUSTELINA. Oliv. testă cylindraceo-oblongă, spirâ plano-depressă, apice acută, anfractu ultimo postice subproducto, plicis columellaribus numerosis; lutescente, strigis angustis flexuosis numerosis promiscue pictă, columellă albicante, aperturæ fauce violaceă.

The Weasel-Like Olive. Shell cylindrically oblong, spire flatly depressed, sharp at the apex, last whorl somewhat produced posteriorly, columellar plaits numerous; yellowish, promiscuously painted with numerous flexuous narrow streaks, columella whitish, interior of the aperture violet.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 616.

Hab. Singapore (in fine sand at a depth of about seven fathoms); Cuming.

There is little variation in this species, which is well characterized by its straight cylindrical form, depressed spire, flexuous line painting, and violet interior.

Species 24. (Fig. a, b, c, Mus. Steere; Fig. d, Mus. Cuming.)

Oliv. testă subelongato-oblongă, crassissimă, spiră exsertă, apice acută, plicis columellaribus fortibus; albă, punctis aut lineis brevibus interruptis cæruleo et croceo-rufo nebulatis promiscue pictă, interdum livido-olivaceo saturate variegată, aperturæ fauce intense violaceă.

The episcopal Olive. Shell rather elongately oblong, very thick, spire exserted, sharp at the apex, columellar plaits strong; white, promiscuously painted with blue and saffron-red clouded dots and short interrupted lines, sometimes darkly variegated with livid-olive, interior of the aperture very deep violet.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 611. Varietas. O. lugubris, Duclos.

Hab. North Australia; Jukes.

A species of very solid growth, prominently distinguished by the very deep violet colouring of the interior. The specimens Fig. c, d represent the typical state of the species. Fig. a, b represents a dwarf variety (O. lugubris, Duclos), in which there is an unusually copious supply of the dark livid-olive painting.

Species 25. (Fig. a, b, Mus. Steere.)
Oliva sanguinolenta. Oliv. testä cylindraceo-oblonga,

basi subabbreviată, spiră brevi, depressă, anfractu ultimo ad extremitatem posticam aperturæ calloso, plicis columellaribus subplanulatis; albidă, lineis olivaceis undatis, nunc minutis numerosissimis confertis, nunc grandibus plus minus distantibus, ornată, columellă et callositate postică sanguineo-rufescentibus, aperturæ fauce cærulescente-albă.

The bloody Olive. Shell cylindrically oblong, somewhat shortened at the base, spire short, depressed, last whorl callous at the posterior end of the aperture, columellar plaits rather flattened; whitish, ornamented with waved olive lines, which are sometimes minute, very numerous and close-set, sometimes large and more or less distant, columella and posterior callosity blood-red, interior of the aperture bluishwhite.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. x. p. 615.
Hab. Island of Negros, Philippines (in sandy mud at low water); Cuming.

Several species of the genus are characterized by a tinge of red at the base of the columella, but in this the whole of the columella is of a uniform blood-red, and this colour not unfrequently appears in the callosity of the spire and along the outer lip.

Species 26. (Fig. a, b, Mus. Cuming; Fig. c, Mus. Steere.)

Oliva Bulbiformis. Oliva testă abbreviato-ovată, tumidă, crassiusculă, spiră brevi, parvă, plicis columellaribus plus minus callosis; griseo-lutescente, olivaceo varie maculată et reticulată, plerumque bifasciată, columellă basi interdum pallidissime sanguineo tinctă, aperture fauce cerulescente-albă, interdum livido-violascente.

The bulb-shaped Olive. Shell abbreviately ovate, swollen, rather thick, spire short, small, columellar plaits more or less callous; greyish-yellow, variously spotted and reticulated with olive, generally two-banded, columella sometimes very faintly tinged with red, interior of the aperture bluish-white, sometimes livid violet.

Duclos, Mon. Oliv. pl. 27. f. 10 to 13.

An varietates? O. dactyliola and Caroliniana, Duclos. Hab. Moluccas.

This species may be readily distinguished by its swollen bulbous form, varying more or less in convexity.







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PLATE XIV.

Species 27. (Mus. Steere.)

Oliv. testă cylindraceo-oblongă, postice latiusculă, spiră acuminată autem depressă, plicis co-lumellaribus parvis, numerosis; lutescente, fuscescente undique pallide reticulată, characteribus fuscis acute undatis bifasciatim sparsim notată, columellă et aperturæ fauce cærulescente-albis.

The inscribed Olive. Shell cylindrically oblong, rather broad posteriorly, spire acuminate but depressed, columellar plaits small, numerous; yellowish, faintly reticulated throughout with pale brown, sparingly marked with brown waved characters in two bands, columella and interior of the aperture bluishwhite.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 615. Hab. ——?

Very closely resembling O. literata in its style of painting, but uniformly of smaller size, and less elongately acuminated. The shell is broader beneath the sutures, the spire being a little depressed, and has more the form of O. mustelina.

Species 28. (Fig. a, Mus. Steere; Fig. b, Mus. Pickering.)

OLIVA HARPULARIA. Oliv. testă oblongo-ovată, postice tumidiusculă, spiră exsertă, plicis columellaribus fere occultis; albă, lineis fuscis plurimis flexuosis longitudinaliter pictă, columellă et aperturæ fauce albis.

The harp-strung Olive. Shell oblong-ovate, posteriorly rather swollen, spire exserted, columellar plaits almost concealed; white, painted longitudinally with numerous brown flexuous lines, columella and interior of the aperture white.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol.x. p. 620. Hab. ——?

I have felt some hesitation in publishing this species, because the shells, of which only three are known in this country (the third in the British Museum), have very much the appearance of being uncoated and polished. It was, however, described by Lamarck, and figured some years before by Chemnitz in a plate of miscellaneous un-named Olives which he termed remarkable varieties, "varietates notabiles Olivæ." It belongs to the O. reticulata type, and is characterized by numerous long flexuous markings

which may or may not be the outer natural coating of the species.

Species 29. (Fig.a, Mus. Steere; Fig. b, c, Mus. Cuming.)

OLIVA POLPASTA. Oliv. testă ovată, crassă, ponderosă, postice obesă, tumidă, spiră breviusculă, apice obtusă, plicis columellaribus numerosis, brevibus, anticis interdum subplanatis; cinereo-olivaceă, maculis hieroglyphicis punctisque nigris oblique notată, maculis lutescentibus ad suturas reticulatis, columellă et apertura fauce carulescente-albis.

The tumid Olive. Shell ovate, thick, ponderous, stout and swollen posteriorly, spire rather short, obtuse at the apex, columellar plaits numerous, short, anterior plaits sometimes rather flattened; ash-olive, obliquely marked with hieroglyphic spots and dots, with yellowish reticulated spots next the sutures, columella and interior of the aperture bluish-white.

Duclos, Mon. Oliv. pl. 16. f. 1.

Hab. Bay of Montija, Veragua, Central America (in sandy mud at a depth of about thirteen fathoms); Cuming.

It is not difficult to connect this Olive, as well as O. Julieta, with O. reticulata, in both of which forms the network of the typical species is broken up into a confusion of dots and dashes.

Species 30. (Fig.a, Mus. Cuming; Fig.b,c,d, Mus. Steere.)

Oliv. testă oblongo-cylindraceă, spiră plerumque acuminată, interdum supra medium annulată, apice acută, plicis columellaribus numerosis, sub-irregularibus, duplicatis; fuscescente-lacteă aut rubescente, guttis obscure violaceo-purpureis undique notată, guttis ad suturas et ad basin intense violaceo-purpureis, interdum purpurascente-carneo marmorată aut reticulată, aperturæ fauce sæpissime aurantiă.

The spotted Olive. Shell oblong-cylindrical, spire generally acuminated, sometimes annulated above the middle, sharp at the apex, columellar plaits numerous, somewhat irregular, duplicate, pale brownish cream-colour or ruddy, marked throughout with obscure violet-purple spots, which are deep violet-purple

round the base and at the sutures, sometimes mottled or reticulated with purple-flesh colour.

Voluta cruenta, Dillwyn, Catalogue of Shells, vol. i. p. 514.
Oliva guttata and leucophæa, Lamarck.
Oliva maculata and mantichora, Duclos.
Eadem var. Voluta annulata, Gmelin.

Hab. Zanzibar, East Africa; Thorn. Australia; Jukes. Island of Siquijor, Philippines (on sand-banks at low water); Cuming. Society Islands (in coral sand at low water); Cuming.

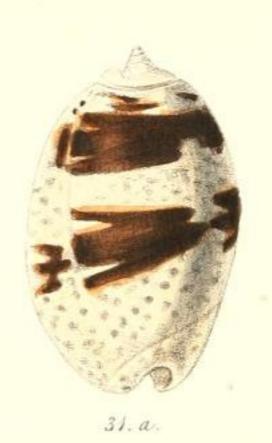
This is a species of a very distinct character, and stands alone in the genus. The typical variety, Fig. 30 a, is of a brownish cream-colour, covered with violet-purple spots, which are obscured by an overcoating of cream-colour, except round the base and along the edge of the whorls next the sutures. Fig. 30 b, c, represent a state of the

species (O. mantichora, Duclos) in which the shell is mottled with a delicate flesh-purple net-work, and the spots are smaller, patched with white and scattered more irregularly. In the variety at Fig. 30 d (O. leucophæa, Lamarck) the spots have the character of scattered triangular blotches, and the ground is frequently of a ruddy tinge. Sometimes the shell is characterized by a more or less obsolete ring, which variety Gmelin named V. annulata.

The O. cruenta has a remarkably wide range. At the Society Islands it occurs in the fine state represented at Fig. a. At Zanzibar the shell is nearly colourless, the spots being only faintly indicated and fewer in number. The specimens from the Philippines are of a warm hue, but nearly colourless; while those from Australia are small and characterized by the confused style of painting represented at Fig. b, c.













31.d.









31.0.

PLATE XV.

Species 31. (Fig. a, b, c, d, e, f, Mus. Steere; Fig. g, Mus. Cuming.)

Oliv. testá ovatá, inflatá, medio gibbosá, crassissimá, spirá depresso-planá, apice elato, acuto, anfractu ultimo ad extremitatem posticam aperturæ calloso-producto, columellá tuberculis duobus callosis armatá, plicis suboccultis; cinerascente-albá, griseo punctatá, nigro-fusco fulguratá, aut maculatá, aut fasciatá, interdum cæruleo-olivaceo et aurantio nebulatá, vel omnino nigro-fuscá, vel eburneá, tuberculis interdum livido-fusco tinctis.

The inflated Olive. Shell ovate, inflated, gibbous in the middle, very thick, spire depressly flattened, apex raised, sharp, last whorl callously produced at the posterior end of the aperture, columella armed with two callous tubercles, plaits rather faint; ashwhite, dotted with grey, lightning-marked or blotched or banded with black-brown, sometimes clouded with blue-olive and orange, or altogether

black-brown or ivory-white, tubercles sometimes tinged with livid-brown.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 619. Varietates. Oliva undata and bicineta, Lamarck.

Hab. Zanzibar; Thorn.

The form of this species is very characteristic, being invariably distinguished by its swollen gibbous growth and by the presence of two plicate tubercles upon the columella. The painting is extremely variable, and its varieties have been selected to characterize different species. Fig. a, mottled with grey dots and encircled by two broad splashed brown bands, represents Lamarck's O. bicincta, whilst the specimens Fig. d, f, g, dotted and lightning-marked with black-brown upon a greyish-white ground, belong to his O. undata. The varieties Fig. b, c are very richly banded, clouded, and zigzag-marked with livid-blue, olive, and orange. Fig. e represents a broadstreaked and zigzag brown-black painted variety. Sometimes the species is entirely black, sometimes entirely white.

September, 1850.























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Frederic Reeve imp.

PLATE XVI.

Species 32. (Fig. a, b, Mus. Cuming.)

Oliva nebulosa. Oliv. testă cylindraceo-oblongă, tumidiusculă, interdum subangustă et acuminată, columellă basin versus concavo-depressă, plicis columellaribus numerosis, confertis; cærulescente-albă, griseo-cæruleo nebulată aut strigată, zonă fulvă, fusco flammulată, ad basin, columellă cærulescente-albă, maculă purpureă basin versus notată.

The clouded Olive. Shell cylindrically oblong, rather swollen, sometimes rather narrow and acuminated, columella concavely depressed towards the base, columellar plates numerous, close-set; bluish-white, clouded and streaked with grey-blue, with a fulvous band, flamed with brown, at the base, columella bluish-white, marked with a purple spot towards the base.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 628.

Hab. ——?

M. Duclos regards this species as the young of O. gib-bosa, and I have myself quoted it with doubt as a variety; it appears, however, to be distinct, especially as regards the narrow form represented at Fig. 32 b. Both varieties are distinguished by a characteristic purple spot towards the base of the columella.

Species 33. (Fig. a, c, Mus. Steere; Fig. b, e, Mus. Cuming.)

OLIVA ACUMINATA. Oliv. testă elongată, angustă, spiră exsertă, acuminată, plicis columellaribus numerosis, basi calloso-contortis; purpurascente-spadiceă, maculis parvis perpaucis pallidis aspersă, ad suturas reticulo notată, zonă lată spadiceă, interdum interruptă, ad basin cingulată, columellă et aperturæ fauce cærulescente-albis.

The acuminated Olive. Shell elongated, narrow, spire exserted, acuminated, columellar plaits numerous, callously twisted at the base; purplish-fawn, sprinkled with a few small pale spots, marked with a network pattern at the sutures, and encircled at the base with a broad fawn zone, which is sometimes

interrupted with light splashes, columella and interior of the aperture bluish-white.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 625. Eadem var. Oliva luteola, Lamarck.

Hab. Senegal, north-west coast of Africa.

In the young state of this species the delicate net-work beneath the sutures is elaborately constructed, and the middle portion of the shell is frequently marked with interrupted zigzag streaks. After the first few whorls this design of pattern becomes obscured.

Species 100. (Fig. 33 d, Mus. Steere.)

Oliva subulata. Oliva testă elongată, angustă, tenuiculă, subventricosă, spiră exsertă, acuminată, plicis columellaribus ad basin calloso-contortis; fulvo-spadiceă aut griseo-cærulescente, maculis parvis albidis umbratis notată, strigis brevibus nigricantibus oblique concentricis infra suturas, zonă lată spadiceă ad basin cingulată, columellă et aperturæ fauce cærulescentealbis.

The subulate Olive. Shell elongated, narrow, rather thin, slightly ventricose, spire exserted, acuminated, columellar plaits callously twisted at the base; fulvous-fawn or grey-blue, marked with small whitish shaded spots, with short obliquely concentric blackish streaks beneath the sutures, encircled with a broad fawn band at the base, columella and interior of the aperture bluish-white.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 626.

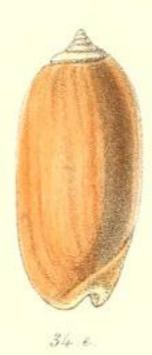
Hab. Bencoolen, west coast of Sumatra (in sandy mud at low water); Cuming.

The irregular numbering of this species arises from the circumstance of my having completed the arrangement of the genus before discovering that Lamarck's O. subulata is truly distinct from his O. acuminata. It is a more ventricose, thinner shell, marked next the sutures with short obliquely concentric streaks in place of network, and inhabits a widely different locality.





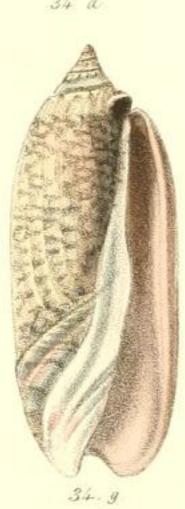












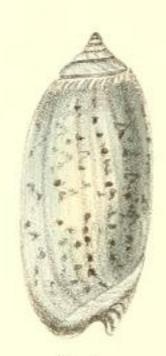








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PLATE XVII.

Species 34. (Fig. a, e, h, Mus. Cuming. Fig. b, c, d, g, i, k, Mus. Steere.)

OLIVA ISPIDULA. Oliv. testā oblongā vel elongato-oblongā, cylindraceā, crassiusculā, spirā brevi, versus apicem exsertā, columellā subdepressā, callosā, plicis plus minus obscuris; albā, vel lutescente, vel aurantiā, vel cinereā, punctis aut maculis linearibus transversis fuscis notatā, interdum nigro-fusco fasciatā aut variè maculatā, columellā eburneā, aperturæ fauce chocolato-fuscā.

The varicoloured Olive. Shell oblong or elongately oblong, cylindrical, rather thick, spire short, exserted towards the apex, columella rather depressed, callous, with the plaits more or less obscure; white or yellowish, or orange, or ash, marked with brown dots and transverse linear spots, sometimes banded or variously blotched with black-brown, columella ivorywhite, interior of the aperture chocolate-brown.

Voluta ispidula, Linnæus, Syst. Nat. 12th edit. p. 1188. Oliva ispidula, Lamarck.

Varietates, O. candida, and oriola, Lamarck.

Oliva flaveola, stellata and tigridella, Duclos.

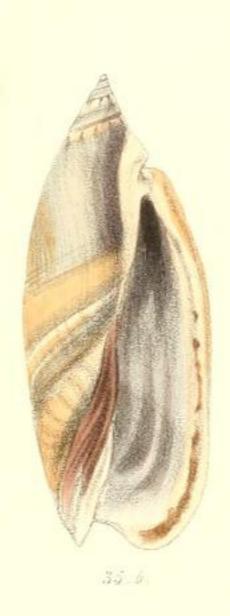
Hab. Philippine Islands.

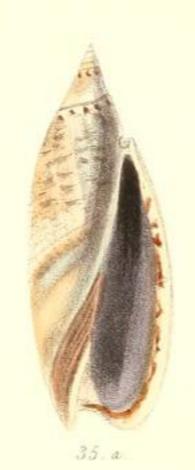
It is almost labour in vain to describe the external colouring of this species, which is the most variable of the

genus, and does not appear to follow any particular design. The colouring of the interior of the shell is extremely characteristic, being with rare exception of a uniform chocolate-brown. Fig. a (Oliva tigridella, Duclos) is splashed with triangular blotches of black-brown upon a warm cream-coloured ground. Fig. b, a very uncommon variety, is encircled with livid blue and reddish pencilbands. Fig. c is very lightly mottled throughout with black-brown. Fig. d (Oliva stellata, Duclos) is ivory-white, sparingly marked with sharp hieroglyphic dashes of violetshaded black-brown. Fig. e (Oliva flaveola, Duelos) is of a warm uniform orange tint. Fig. f is of a mingled ash and yellow ground covered with black-brown dashes, and encircled with a broad band of the same colour beneath the sutures. Fig. g is of a livid ash-colour speckled here and there with dark dots. Fig. h (Oliva tigridella, Duclos) is almost entirely black-brown. Fig. i is of an opake livid grey, with a few scattered dots of darker colour; and Fig. k is of a warm yellowish hue, closely dotted and mottled throughout with olive and dark oliveblack. The pure white state of the species has been named O. candida by Lamarck, whose O. oriola appears to be another variety wanting the rich chocolate-brown interior. The shell figured for O. oriola by Duclos is probably a variety of O. reticulata.













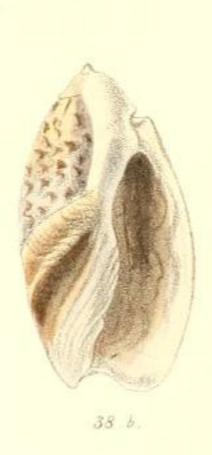






PLATE XVIII.

Species 35. (Fig. a, b, Mus. Steere.)

OLIVA HIATULA. Oliv. testă subfusiformi-ovată, ventricosă, spiră subacuminată, columellă elevată, plicis distinctis, peculiariter calloso-contortis, apertură patulă,
supernè emarginată; spadiceo-griseă, punctis strigisque
cæruleo-fuscis apicem versus subobscurè notată, zonă
lată fulvă ad basin cingulată, columellă livido-purpurascente, aperturæ fauce livido-fuscă.

The gaping Olive. Shell somewhat fusiformly ovate, ventricose, spire somewhat acuminated, columella raised, plaits distinct, peculiarly callously twisted, aperture wide open, emarginated at the upper part; fawngrey, somewhat obscurely marked towards the apex with blue-brown dots and streaks, and encircled round the base with a broad fulvous zone, columella livid-purple, interior of the aperture livid-brown.

Voluta hiatula, Gmelin, Syst. Nat. p. 3442.

Oliva hiatula, var. b, Lamarek.

L'Agaron, Adanson.

Ancilla maculata, Schumacher.

Hiatula Lamarckii, Swainson.

Hab. Senegal and Mouth of the Gambia, West Africa.

This and the following species were confounded together by M. Duclos, but they are quite distinct and inhabit very remote localities. The true O. hiatula (pl. 3. fig. 15, of his monograph) chiefly characterized by the raised constricted growth of the columella and by its livid-purple colouring, is from the west coast of Africa, collected by Adanson at Senegal, and by later travellers at the mouth of the Gambia. O. testacea (pl. 4. fig. 19, 20, of Duclos' monograph), concerning which Lamarck especially notices the dark brown colouring of the spire and base of the last whorl, was collected by Humboldt and Bonpland on the shores of Mexico, and more recently by Mr. Cuming in the same locality at Real Llejos.

Species 36. (Mus. Cuming.)

OLIVA TESTACEA. Oliv. testă fusiformi-ovată, ventricosă, spiră acuminată, plicis columellaribus calloso-contortis, apertură patulă, superne emarginată; cinereo-griseă, lineis flexuosis fuscis cæruleo-umbratis plus minus obscure pictă, apicem versus et ad basin fumeo-fuscă, columellă albă, aperturæ fauce violaceo-fuscă.

THE TESTACEOUS OLIVE. Shell fusiformly ovate, ventri-

cose, spire acuminate, columellar plaits callously twisted, aperture wide open, emarginated at the upper part; ash-grey, more or less obscurely painted with blue-shaded brown flexuous lines, smoky-brown at the base and towards the apex, columella white, interior of the aperture violet-brown.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 627.

Oliva hiatula, pars, Duclos.

Hab. Real Llejos, Mexico (in sandy mud at a depth of about six fathoms); Cuming.

Of a more acuminated form than the preceding species, from which it is further distinguished by its smoky or purple-brown colouring, and white columella. It may be observed that the localities of the two species are very remote from each other.

Species 37. (Mus. Steere.)

OLIVA STEERIÆ. Oliv. testå oblongo-ovatá, ventricosá, spirá brevi, acutá, columellá medio depressá, supernè callosá, plicis calloso-contorlis; griseo-fuscá, obscurè maculalá, spirá et zoná basali fumeo-fuscis, interdum cærules-cente-lacteá, immaculatá, columellá eburneá, aperturæ fauce intensè purpureá.

Stere's Olive. Shell oblong-ovate, ventricose, spire short, sharp, columella depressed in the middle, callous at the upper part, plaits callously twisted; grey-ish-brown, obscurely spotted, spire and basal zone smoky-brown, sometimes bluish cream-colour, unspotted, columella ivory-white, interior of the aperture deep purple.

Oliva hiatula, pars, Duclos.

Hab. Mouth of the Gambia, West Africa.

The O. Steeriæ is chiefly distinguished from O. hiatula of the same locality, by its depressed white columella, whilst the general colouring of the shell is more like that of the Mexican O. testacea. It differs, however, from the last-named species both in the depression of the columella, which gives it a boat-shaped form, and in having a shorter spire. The coloured state of O. Steeriæ is well represented by Duclos, under O. hiatula, Mon. Oliv. pl. 3. f. 14. The specimen figured in the accompanying plate, represents a variety in which the entire surface of the shell is overlaid with a milk-white coating, and the interior richly purple-enamelled.

I have the pleasure to name this fine species in honour of Miss Steere, a lady whose magnificent collection of Olives, and nice discrimination of their varieties of character, have been of essential service to me in the preparation of this monograph.

Species 38. (Mus. Steere.)

OLIVA AQUATILIS. Oliv. testā ovatā, ventricosā, subtus concavā, spirā brevi, callosā, columellā medio depressā, supernè callosā, plicis parvis, numerosis, duabus basalibus fortioribus, aperturā patulā; griseo-cærulescente, strigis flexuosis saturatioribus undique pictā, zonis duabus, alterā fulvā, alterā livido-purpureā, cingulatā, columellā albā, aperturæ fauce livido-purpurascente.

The Rippled Olive. Shell ovate, ventricose, concave beneath, spire short, callous, columella depressed in the middle, callous at the upper part, plaits small, numerous, two basal plaits stronger, aperture wide open; greyish-blue, painted throughout with flexuous streaks of a darker grey-blue, encircled at the base with two zones, one of which is fulvous, the other livid-purple, columella white, interior of the aperture tinged with livid-purple.

Oliva auricularia, Duclos (not of Lamarck).

Hab. Brazil.

The form O. aquatilis is just intermediate between that

of the foregoing species and of the following; and it is further characterized by the rippled painting and divided colouring of the broad basal enamel zone.

Species 39. (Mus. Cuming.)

Oliva auricularia. Oliv. testă depresso-ovată, lată, ventricosă, subtus concavă, spiră brevissimă, callositate occultă, columellă medio depressă, superne valde callosă, verrucosă, plicis parvis, fere occultis, duabus basalibus validis, apertură patulă; carulescente-griseă, zonă basali lată, livido-fuscescente, columellă albă, apertura fauce livido-fuscescente.

The ear-shaped Olive. Shell depressly ovate, broad, ventricose, concave beneath, spire very short, concealed by callosity, columella depressed in the middle, very callous at the upper part, warty, plaits small, almost concealed, two basal plaits strong, aperture wide open; bluish-grey, broad basal zone livid-brown, columella white, interior of the aperture pale livid-brown.

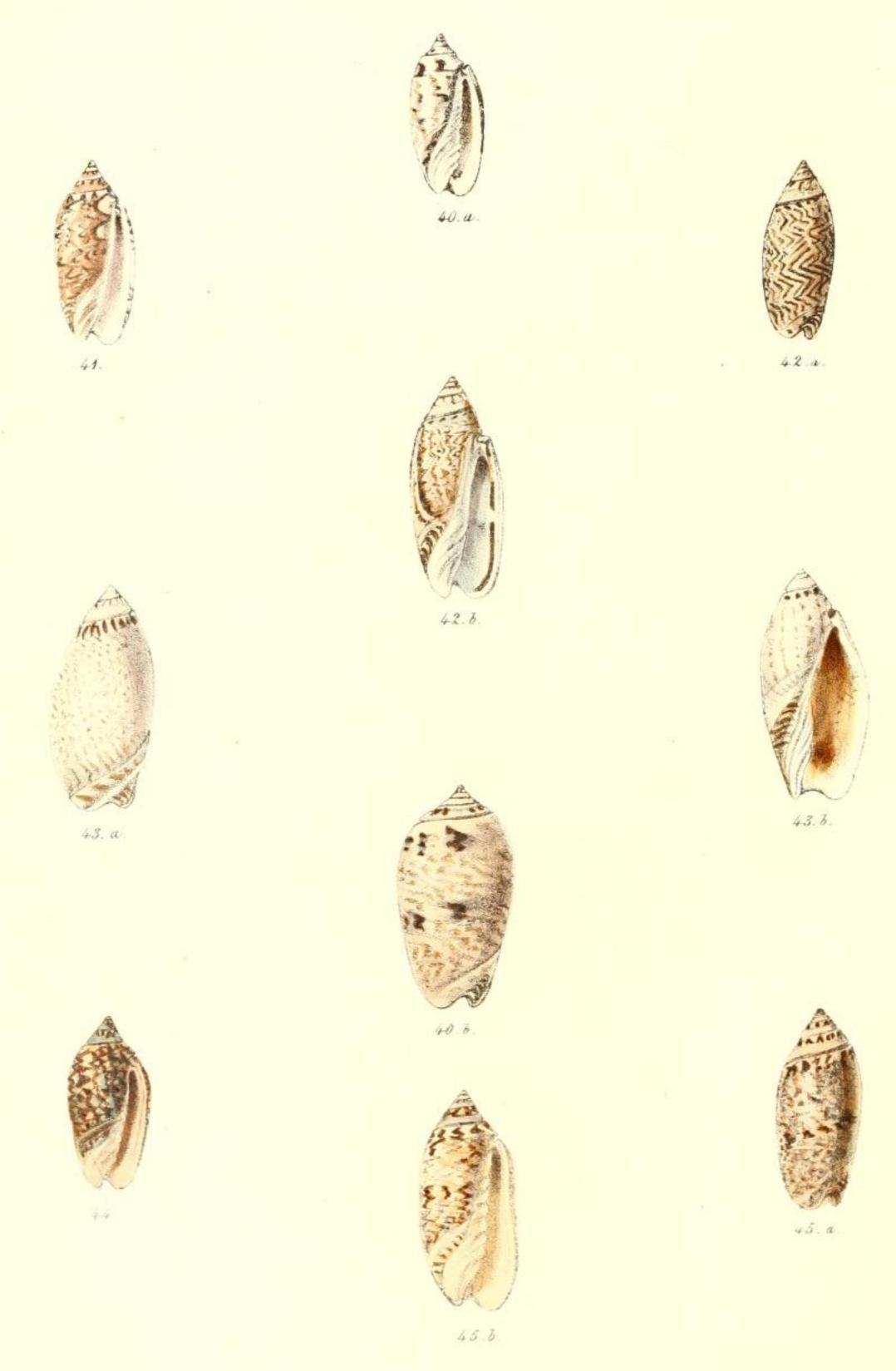
LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. x. p. 625.
Oliva patula, Sowerby.

Oliva clancophila, Duclos.

Hab. Brazil.

This shell is remarkably distinguished by its broad gibbous growth, and enormous callous deposit on the upper part of the columella.





Sowerby del et lith

Frederic Rees imp

PLATE XIX.

Species 40. (Fig. a, b, Mus. Steere.)

OLIVA STAINFORTHII. Oliv. testă ovată, crassă, supra medium peculiariter tumidă, spiră brevi, acuminată, plicis columellaribus fortibus, latiusculis; albă, punctis rufescentibus, griseo-umbratis, evanide aspersă, maculis perpaucis nigricantibus sparsim bifasciatim notată, juxta suturas immaculată, columellă et apertura fauce eburneis.

STAINFORTH'S OLIVE. Shell ovate, thick, peculiarly swollen above the middle, spire short, acuminated, columellar plaits strong, rather broad; white, faintly sprinkled with grey-shaded reddish dots, and marked with a very few blackish blotches disposed in two bands, unspotted next the sutures, columella and interior of the aperture ivory-white.

Hab. --- ?

A new and very distinct species, in the collection of Miss Steere, which gives me an opportunity of recording my sense of the valuable additions which have been made to our knowledge of this genus by the communicated experience of the Rev. F. J. Stainforth.

Species 41. (Mus. Steere.)

Oliva flammulata. Oliv. testā cylindraceo-ovatā, spirā subacuminatā, plicis columellaribus subevanidis; albidā, carneo-fusco reticulatā, areis reticulatis hic illic peramplis, columellā basi fuscescente tinctā, aperturæ fauce albā.

The flame-marked Olive. Shell cylindrically ovate, spire somewhat acuminated, columellar plaits rather faint; whitish, reticulated with flesh-brown, the reticulated spaces being here and there very large, columella tinged with light brown, interior of the aperture white.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. x. p. 613.

Hab. West Indies.

This species is very closely allied to O. reticulata, but differs in not having the net-work gathered in clusters of lines at the sutures. The net-work spaces are here and there remarkably large, especially on the upper surface of the last whorl, which, in the accompanying figure, has been inadvertently turned from the observer.

Species 42. (Fig. a, Mus. Steere; Fig. b, Mus. Cuming.)

OLIVA AUSTRALIS. Oliv. testá oblongo-cylindraceá, spirá exsertá, columellá medio subcompressá, plicis numerosis, ætate citò evanidis; albidá, lineis undulatis cinereo-purpureis, sæpè promiscuis, ornatá, anfractuum margine suturali punctato, columellá et aperturæ fauce eburneis.

The southern Olive. Shell oblong-cylindrical, spire exserted, columella slightly compressed in the middle, plaits numerous, soon fading with age; whitish, ornamented with waved purple-ash lines, which are often promiscuous, sutural edge of the whorls dotted, columella and interior of the aperture ivory-white.

Duclos, Mon. Oliv. pl. 8. f. 3, 4.

Hab. —— ?

The waved marking of this species appears to be invariably of an ash-purple colour. It is of an oblong-cylindrical form, and very distinctly characterized.

Species 43. (Mus. Cuming.)

Oliva Indusica. Oliv. testā ovatā, tenuiculā, medio gibboso-inflatā, spirā brevi, columellā medio depresso-concavā, plicis planulatis, aperturā subpatulā; albā, punctis fuscescentibus, promiscuè undulatis, aspersā, margine suturali strigis fuscis irregularibus ornato, basi zonā fuscescente cingulatā, columellā albā, aperturæ fauce ferrugineā.

The Indus Olive. Shell ovate, rather thin, gibbously inflated in the middle, spire short, columella depressly concave in the middle, plaits somewhat flattened, aperture rather wide open; white, sprinkled with light brown dots, promiscuously waved, sutural margin ornamented with irregular brown streaks, base encircled with a light brown zone, columella white, interior of the aperture rust-brown.

Hab. Kurrachee, mouth of the Indus.

An interesting new species, allied to O. hiatula and testacea. The surface of the shell is freckled throughout with faint brown dots disposed in promiscuous waves, and the sutural edge of the whorls is conspicuously streaked.

Species 44. (Mus. Cuming.)

OLIVA DUCLOSI. Oliv. testă subconico-ovată, crassă, superne tumidă, spiră exsertă, plicis columellaribus subamplis; aurantio-luteă, olivaceo-fusco dense reticulată, areis reticulæ subdistantibus, acute trigonis, columellă et aperturæ fauce aurantio-luteis.

Duclos' Olive. Shell somewhat conically ovate, thick, swollen round the upper part, spire exserted, columellar plaits rather large; orange-yellow, thickly reticulated with olive-brown, the spaces of the network being rather distant and sharply triangular, columella and interior of the aperture orange-yellow.

Oliva jaspidea, Duclos, Mon. Oliv. pl. 8. f. 9, 10.

Hab. Banguey, Island of Luzon, Philippines (on the sands at low water); and Society Islands (in coral sand at low water); Cuming.

The net-work colouring of this species is so thickly developed as only to leave scattered sharply triangular spaces. Sometimes, however, it is much confused.

Having to apply the term jaspidea to Lamarck's O. conoidalis, in consequence of it being so named by Gmelin under the head of *Voluta*, I have the pleasure to dedicate this species to M. Duclos, in acknowledgment of the value of his *Oliva* figures, of which it is much to be regretted he never published any descriptions.

Species 45. (Fig. a, b, Mus. Steere.)

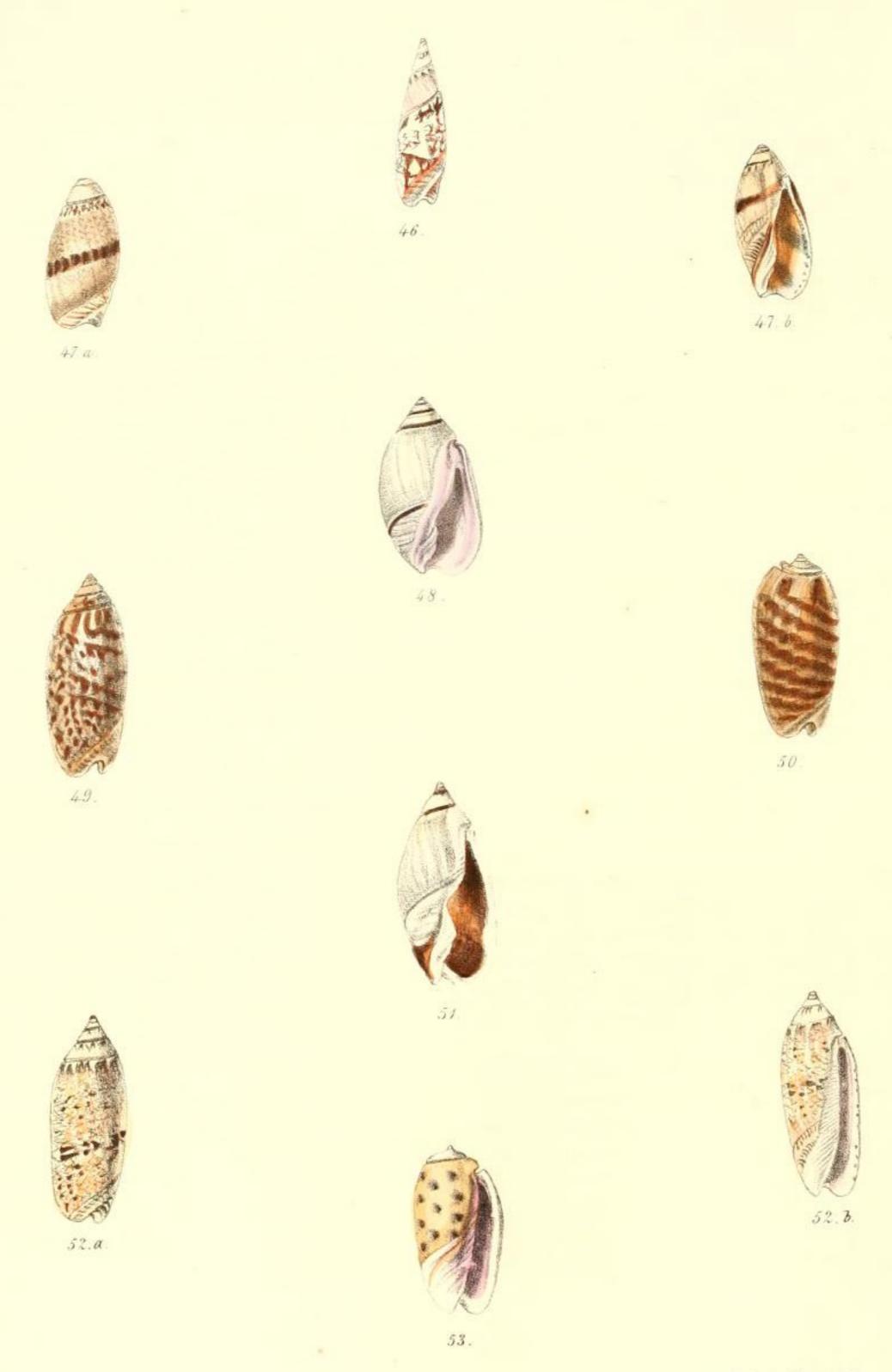
OLIVA LENTIGINOSA. Oliv. testâ oblongă, subcylindraceâ, crassă, spirâ exsertâ, plicis columellaribus subamplis, brevibus; lutescente-albâ, purpureo-cinereo lentiginosâ, maculis promiscuis nigricantibus infra suturas et in medio cingulată, columellâ et aperturæ fauce lutescente-albis.

The freckled Olive. Shell oblong, somewhat cylindrical, thick, spire exserted, columellar plaits rather large, short; yellowish-white, freckled with light purple-ash, encircled beneath the sutures and round the middle with promiscuous blackish spots, columella and interior of the aperture yellowish-white.

Hab. —— ?

An interesting new species, of which Miss Steere possesses the two characteristic specimens here figured.





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Frederic Reeve imp.

PLATE XX.

Species 46. (Mus. Cuming.)

OLIVA GRACILIS. Oliv. testă gracili-fusiformi, basi truncată, Terebelliformi, spiră elongato-exsertă, anfractu ultimo brevi, aperturam versus descendente, columellă arcuată, supernè callosă, plicis subcontortis; albă, rufescente-fusco sparsim et irregulariter reticulată, zonă spadiceo-fuscă ad basin cingulată, spiră callosă, parum pictă, columellă et aperturæ fauce albis.

The slender Olive. Shell slenderly fusiform, truncated at the base, Terebellum-shaped, spire elongately exserted, last whorl short, descending towards the aperture, columella curved, callous at the upper part, plaits somewhat twisted; white, sparingly and irregularly reticulated with red-brown, encircled with a fawn-brown zone round the base, spire callous, but little painted, columella and interior of the aperture white.

Broderip and Sowerby, Zool. Journal, vol. iv. p. 379.

Hab. Xipixapi, West Columbia (in sandy mud at a depth of about nine fathoms); Cuming.

Remarkable for the descending convolution of the last whorl, which gives a prolonged appearance to the spire, whilst the shell, being light and broadly truncated at the base, partakes of the form of *Terebellum*. The net-work colouring is extremely partial in its distribution.

Species 47. (Fig. a, b, Mus. Cuming.)

OLIVA CINCTA. Oliv. testā ovatā, tenuiculā, inflatā, basin versus effusā, spirā brevi, columellā medio depressā, plicis calloso-contortis, aperturā subpatulā; olivaceocinereā, fusco undique obscurè minutè punctatā, strigis brevibus perpaucis infra suturas, fasciā angustā saturatiore in medio cingulatā, columellā albidā, fusco zonatā, aperturæ fauce fuscā.

The girdled Olive. Shell ovate, rather thin, inflated, effused towards the base, spire short, columella depressed in the middle, plaits callously distorted, mouth rather wide open; olive-ash, obscurely minutely dotted throughout with brown, with a few short brown streaks beneath the sutures, and encircled with a narrow darker band round the middle, columella whitish, zoned with brown, interior of the aperture brown.

Hab. --- ?

There is a strong apparent resemblance between this species and O. Indusica, but they differ materially on comparison.

Species 48. (Mus. Cuming.)

OLIVA BIPLICATA. Oliv. testă abbreviato-ovată, crassă, obesă, longitudinaliter substriată, spiră brevi, columellă arcuată, lævi, supernè callosă, ad basin biplicată, apertură basi effusă; cærulescente-griseă, suturis fuscis, columellă basique intensè violaceis, apertură cærulescente-griseâ, margine violaceă.

The two-plaited Olive. Shell abbreviately ovate, thick, stout, slightly striated longitudinally, spire short, columella arched, smooth, callous at the upper part, two-plaited at the base, aperture effused at the base; bluish-grey, sutures brown, columella and base deep violet, aperture blue-grey, violet at the edge.

Sowerby, Tankerville, Cat. App. p. 33.

Hab. Monterey, California (in the sands at low water); Hinds.

Well distinguished by its short obese growth, and two basal columellar plaits.

Species 49. (Mus. Cuming.)

Oliv. testá oblongo-cylindraceá, spirá exsertá, plicis columellaribus parviusculis; pur-purascente-spadiceá, rufo-castaneo interruptè maculatá et variegatá, maculis oblongo-quadratis infra suturas, columellá et aperturæ fauce purpurascente-albis.

The woven Olive. Shell oblong-cylindrical, spire exserted, columellar plaits rather small; purple-fawn, interruptedly spotted and variegated with reddishchestnut, with oblong-square spots beneath the sutures, columella and interior of the aperture purplish-white.

Duclos, Mon. Oliv. pl. 8. f. 7, 8.

Hab. Bay of Guayaquil and Gallapagos Islands (at a depth of from six to twelve fathoms); Cuming.

There is a peculiarity in the form and colouring of this species which appears constant, and renders it easy to be recognized.

Species 50. (Mus. Cuming.)

OLIVA RUFULA. Oliv. testa oblonga, spira brevi, depressa, anfractu ultimo ad extremitatem posticam aperturæ calloso-producto, plicis columellaribus subevanidis; fuscescente-spadicea, rufo-castaneo obliquè fasciata, lineis obscurè diagonaliter decussata, columella et aperturæ fauce subspadiceis.

The Reddish Olive. Shell oblong, spire short, depressed, last whorl callously produced at the posterior end of the aperture, columellar plaits rather faint; brownish-fawn, obliquely banded with reddish-chestnut, and obscurely diagonally crossed with lines of the same colour, columella and interior of the aperture somewhat fawn-tinted.

Duclos, Mon. Oliv. pl. 19. f. 9, 10.

Hab. Cagayan, Island of Mindanao, Philippines (in sandy mud at a depth of twenty fathoms); Cuming.

The form of this species is similar to that of O. maura; but the cross-barred style of colouring is characteristic and appears constant.

Species 51. (Mus. Cuming.)

OLIVA CONTORTUPLICATA. Oliv. testå ovatå, tenuiculå, medio gibboså, subinflatå, spirå brevi, acuminatå, calloså, apice acutå, columellå valdè arcuatå, plicis peculiariter fortiter contortis; cærulescente-griseå, zonå angustå castaneå basi cingulatå, columellå albå, aperturæ fauce intensè castaneå.

The twisted-plaited Olive. Shell ovate, rather thin, gibbous and slightly inflated in the middle, spire short, acuminated, callous, sharp at the apex, columella much arched, plaits peculiarly strongly twisted; blue-grey, encircled round the base with a narrow chestnut zone, columella white, interior of the aperture very dark chestnut.

Hab. Senegal, West Africa.

Very remarkably distinguished by a peculiar twisted growth of the plaited portion of the columella, above and around which is a depressed groove, coloured by the same dark chestnut as the interior of the shell.

Species 52. (Mus. Cuming.)

OLIVA MULTIPLICATA. Oliv. testa oblongo-cylindracea, subangusta, spira acuminata, plicis columellaribus subtilibus, numerosissimis, apertura angusta; albida, fusco-rubente undique minutissimè et eximiè reticulata, maculis perpaucis punctisque medio promiscuè cingulata, linearum maculis infra suturas.

The many-plaited Olive. Shell oblong-cylindrical, rather narrow, spire acuminated, columellar plaits fine and very numerous, aperture narrow; whitish, very minutely and delicately reticulated throughout with brown-red, promiscuously encircled round the middle with a few blotches and dots, with blotches of lines beneath the sutures.

Hab. --- ?

This species is also remarkably distinct, having the columellar plaits much finer and more numerous than in any hitherto known. The pattern consists of a delicate net-work of most elaborate fabric, very similar to that of the Conus gloria-maris.

Species 53. (Mus. Cuming.)

Oliva tessellata. Oliv. testă ovată, crassă, spiră brevi, apice acută, plicis columellaribus latiusculis; luteă, purpureo-nigricante sparsim maculată, columellă et aperturæ fauce intense purpureo-violaceis.

The tessellated Olive. Shell ovate, thick, spire short, sharp at the apex, columellar plaits rather broad; yellow, sparingly spotted with purple-black, columella and interior of the aperture intense, purple-violet.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 620.

Cylindrus tigrinus, Meuschen.

Voluta tigrina, Schreeter.

Hab. Island of Ticao, Philippines; Cuming.

This well-known species stands alone in the genus, there being no other allied to it in respect of its characteristic style of painting.





56. a.









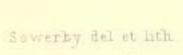












57. a

Frederic Reeve imp.

PLATE XXI.

Species 54. (Fig. a, b, Mus. Steere; Fig. c, Mus. Cuming.)

OLIVA VOLUTELLA. Oliv. testå oblongo-cylindraceå, spirå exsertå, apice acutå, plicis columellaribus numerosis, omnibus basalibus; cæruleo-griseå aut fusco-purpureå, immaculatå, suturis et zonå basali castaneo-fuscis, zonå interdum autem rarò pallidè luteå, columellå albidå, aperturæ fauce intensè castaneå.

The little volute Olive. Shell oblong-cylindrical, spire exserted, sharp at the apex, columellar plaits numerous, all basal; blue-grey or brown-purple, unspotted, sutures and basal zone chestnut-brown, sometimes, but rarely, pale yellow, columella whitish, interior of the aperture very dark chestnut.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 623.

Oliva cærulea, Wood.

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

The whole of the columellar plaits of this species are upon the callous basal zone. The shell varies in colour from a blue-green to a very dark chestnut-purple.

Species 55. (Fig. a, b, Mus. Metcalfe.)

Oliv. testā oblongā, crassā, spirā exsertā, acuminatā, plicis columellaribus calloso-contortis; sordidē carneolā, immaculatā, nisi infra suturas evanidē strigatā, zonā basali pallidiore, columellā et aperturæ fauce albidis.

The Ancillaria-like Olive. Shell oblong, thick, spire exserted, acuminated, columellar plaits callously twisted; dull carnelion, unspotted save beneath the sutures, where it is faintly streaked, basal zone paler, columella and interior of the aperture whitish.

Hab. Kurrachee, Mouth of the Indus.

The colour and general aspect of this species is very similar to that which prevails among the *Ancillariæ*. The only specimen known to me, in addition to the one here

figured from Mr. Metcalfe's collection, belongs to Mr. Cuming, with the above-named locality attached to it.

Species 56. (Fig. a, b, Mus. Cuming.)

OLIVA PAXILLUS. Oliv. testå oblongo-conică, crassă, obesă, subfusiformi, spiră ampliter exsertă, plicis columella-ribus paucis; eburneă, fuscescente obscure notată, maculis reticulatis castaneis aspersis infra suturas.

The peg Olive. Shell oblong-conical, thick, stout, rather fusiform, spire largely exserted, columellar plaits few in number; ivory-white, obscurely marked with light brown, with scattered spots of chestnut network beneath the sutures.

Hab. --- ?

The form and painting of this species both remind one of certain varieties of Conus reticulatus.

Species 57. (Fig. a, b, c, Mus. Steere.)

OLIVA LIGNEOLA. Oliv. testá ovatá, suprà tumidiusculá, spirá brevi, subacutá, plicis columellaribus numerosis, subevanidis; fulvá aut nigricante-castaneá, immaculatá, zoná basali pallidiore nigricante-castaneo tinctá, columellá albá, interdum purpurascente tinctá, aperturæ fauce cærulescente-albá.

The wooden Olive. Shell ovate, rather swollen round the upper part, spire short, rather sharp, columellar plaits numerous, rather faint; fulvous or blackishbrown, unspotted, basal zone paler, stained with blackish chestnut, interior of the aperture bluishwhite.

Hab. --- ?

The specimens here figured from Miss Steere's collection appear to represent a species distinct from any described hitherto, one of a fulvous-brown colour, the other a very dark brilliant chestnut, of which colour both have a characteristic stain at the base.











58 C.













PLATE XXII.

Species 58. (Fig. a, Mus. Steere; Fig. b, c, Mus. Cuming.)

Oliv. testă acuminato-oblongă, subfusiformi, spiră exsertă, columellă tenuiplicată; albidă, fusco profuse minute punctată, maculis reticulatis infra suturas et ad zonam basalem, interdum cinereo aut cæruleo nebulată et albipunctată.

The Jasper Olive. Shell acuminately oblong, somewhat fusiform, spire exserted, columella finely plaited; whitish, profusely minutely dotted with brown, with blotches of net-work beneath the sutures and on the basal zone, sometimes clouded with ash or blue and dotted with white.

Voluta jaspidea, Gmelin, Syst. Nat. p. 3442. Oliva conoidalis, Lamarck.

Hab. West Indies. Red Sea.

This pretty species is well characterized by the blotches of net-work beneath the sutures, and by a pattern of similar design on the basal zone, whilst the intermediate space is curiously wave-dotted. The specimens represented at Fig. 58~a and 58~c are from the West Indies, whilst the blue-clouded variety at 58~b is from the Red Sea.

Species 59. (Mus. Steere.)

Oliva Volvarioides. Oliv. testá oblongo-ovatá, spirá brevi, acutá, columellá multiplicatá, plicis brevibus, subprominentibus; undique vivide castaneá, columellá et aperturæ fauce cærulescente-albis.

THE VOLVARIA-LIKE OLIVE. Shell oblong-ovate, spire short, sharp, columella many-plaited, plaits short, rather prominent; bright chestnut throughout, columella and interior of the aperture bluish-white.

Duclos, Mon. Oliv. pl. 25. f. 14. Hab. ——?

The uniform chestnut colouring appears to be peculiar to the species in this instance.

Species 60. (Fig. a, b, c, f, Mus. Cuming; Fig. d, e, Mus. Steere.)

Oliva carneola. Oliv. testā oblongo-cylindraceā, spirā brevi, columellā multiplicatā, plicis brevibus; eburneā, purpurascente densè reticulatā, anfractiis ultimi margine postico punctato, deinde testā crassā, medio tumidā, plicis subevanidis, aurantio-carneolo vividè fasciatā.

The carnelion Olive. Shell oblong-cylindrical, spire short, columella many-plaited, plaits short; ivory-white, thickly reticulated with light purple, posterior edge of the last whorl dotted, then shell thickened, swollen round the middle, columellar plaits somewhat faint, banded with bright orange-carnelion.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 621. Varietates.

Oliva todosina and Athenia, Duclos.

Hab. Philippine Islands (at depths varying from ten to sixty fathoms); Cuming.

This species varies from the oblong-cylindrical purplenetted state represented at Fig. 60 a, b, to the stout rich orange-carnelion banded state at Fig. 60 e, the latter being probably an overcoating of the former. In the specimen figured at 60 d, c, a mixture of these patterns and colours is represented, in which the purple net-work of the former state is seen beneath a layer of the carnelion enamel of the latter.





Oliva, Pl. XXIII.



Sowerby lel at hih.

[Figures slightly enlarged.]

66

Produce Reeve imp

65. b.

64 6

PLATE XXIII.

Species 61. (Fig. a, b, Mus. Steere.)

OLIVA SEMISTRIATA. Oliv. testă acuminato-ovată, spiră exsertă, basi late effusă, truncată, anfractus ultimi dimidio postico concentrice inciso-striato, striis creberrimis, interdum obsoletis, columellă arcuată, depressă, basi obsolete uniplicată; griseo-plumbeă, zonă luteolă angustă cingulată, spiră callosă, albidă, suturis castaneo-brunneis, columellă basique albis, aperturæ fauce intense castaneo-brunneă.

THE HALF-STRIATED OLIVE. Shell acuminately ovate, spire exserted, base broadly effused, truncated, posterior half of the last whorl concentrically deeply striated, striæ close-set, sometimes obsolete, columella arched, depressed, obsoletely one-plaited at the base; greyish lead-colour, encircled with a narrow yellowish zone, spire callous, whitish, sutures chestnut-brown, base and columella white, interior of the aperture dark chestnut-brown.

Gray, Zool. Beechey's Voyage, p. 130. pl. 36. f. 10. Hab. Salango, West Columbia; Cuming.

This species is well characterized by the upper or posterior portion of the last whorl being very closely concentrically grooved with striæ, which in the preceding whorls become obliterated by the flow of enamel from the aperture.

The locality of *O. semistriata* is not given in Beechey's Voyage. The species was observed at Salango, by Mr. Cuming, moving about by hundreds with great rapidity in the wet sand.

Species 62. (Mus. Steere.)

OLIVA COLUMELLARIS. Oliv. testă acuminato-ovată, depressă, spiră breviusculă, acută, basi latè effusă, truncată, columellă usque ad spiram crasse callosă, basi obsolete uniplicată; cærulescente-plumbeă, luteo-albido bizonată, columellă albă, aperturæ fauce intense castaneo-brunneă.

The columellar Olive. Shell acuminately ovate, depressed, spire rather short, sharp, base broadly effused, truncated, columella thickly callous all along to the spire, obsoletely one-plaited at the base; bluish lead-colour, two-zoned with yellowish-white, columella white, interior of the aperture dark chestnut-brown.

Sowerby, Tankerville Catalogue, App. p. 35.

Hab. Payta, Peru (in fine sand at low water); Cuming.

Remarkably distinguished by a very copious deposit of enamel along the columella on to the spire.

Species 63. (Fig. a, b, Mus. Steere.)

OLIVA LINEOLATA. Oliv. testă acuminato-oblongă, crassă, spiră valde exsertă, callosă, columellă arcuată, basi subobscure multiplicată et contortă; spadiceo-albă, lineolis fuscis infra suturas strigată et reticulată, basi immaculată, columellă et aperturae fauce intense violaceo-purpureis.

The line-netted Olive. Shell acuminately oblong, thick, spire much exserted, callous, columella arched, somewhat obscurely many-plaited and twisted at the base; fawn-white, streaked and reticulated beneath the sutures with brown lines, base unspotted, columella and interior of the aperture deep violet-purple.

Gray, Wood's Index Testaceologicus, Supp. pl. 5. f. 37. Oliva dama, Duclos.

Hab. California.

The net-work of this species descends in rather long lines from the sutures. The columella and interior of the shell are well distinguished by their rich violet-purple colouring.

> Species 64. (Fig. a, Mus. Steere; Fig. b, Mus. Cuming.)

OLIVA NIVEA. Oliv. testă acuminato-oblongă, crassă, spiră valde exsertă, callosă, columellă obscure multiplicată, superne callosă; lutescente-albă, infra suturas roseo-purpureo eximie promiscue reticulată, fasciă reticulată medio pallidiore, basi immaculată, columellă et aperture fauce albis.

The snowy Olive. Shell acuminately oblong, thick, spire much exserted, callous, columella obscurely many-plaited, callous at the upper part; yellowish-white, delicately promiscuously reticulated beneath the sutures with rose-purple, the reticulated band being paler in the middle, base unspotted, columella and interior of the aperture white.

Voluta nivea, Gmelin, Syst. Nat. p. 3442. Oliva eburnea, Lamarck. Hab. West Indies.

Encircled with a broad band of delicately painted rosepurple net-work upon a semitransparent yellowish-white ground, the columella and interior of the aperture being free from any tinge of colour.

Species 65. (Fig. a, b, Mus. Steere.)

Oliv. testá ovatá, crassá, obesá, spirá breviusculá, columellá arcuatá, obscurè multiplicatá, supernè callosá; albá, lineis plurimis fuscescentibus irregulariter undatá, vix reticulatá, fasciá castaneá angustá ad basin, columellá et aperturæ fauce albis.

The Esther Olive. Shell ovate, thick, stout, spire rather short, columella arched, obscurely many-plaited, callous at the upper part; white, irregularly waved, scarcely reticulated, with numerous pale brown lines, with a narrow chestnut band at the base, columella and interior of the aperture white.

Duclos, Mon. Oliv. pl. 3. f. 7, 8.

Hab. --- ?

A shell of short stout growth, in which the painting has the character of an unravelled net-work.

Species 66. (Mus. Cuming.)

OLIVA NANA. Oliv. testă subtrigono-ovată, superne tumidă, callosă, spiră brevi, columellă valde callosă, præcipue versus spiram, basi obscure uni- bi-plicată; albidă aut spadiceo-lutescente, medio lineis castaneis acute angulatis concentrice undată.

The dwarf Olive. Shell somewhat triangularly ovate, swollen and callous round the upper part, spire short, columella very callous towards the spire, base obscurely one- two-plaited; whitish or light fawn-yellow, concentrically waved round the middle with zigzag chestnut lines.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 631.

Voluta micans, Dillwyn.

Hab. West Indies.

This little species is well characterized by its swollen callous growth round the upper or posterior edge of the whorls, and by its concentric zigzag style of painting.



Oliva, Pl. XXIV.



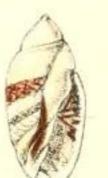




67.6.



69. a



69. d.





69.6



70. b.



70. a.



70. c.

PLATE XXIV.

Species 67. (Fig. a, Mus. Steere; Fig. b, Mus. Cuming.)

- Oliv. testă acuminato-oblongă, spiră acute exsertă, columellă multiplicată, plicis subtilibus, confertis; aurantio-luteă, zonis angustis distantibus albis cingulată, nigro promiscue lentiginosă et punctată, columellă et aperturæ fauce albis.
- The white-zoned Olive. Shell acuminately oblong, spire sharply exserted, columella many-plaited, plaits fine, close-set; orange-yellow, encircled with two distant narrow white zones, and promiscuously freekled and dotted with black, columella and interior of the aperture white.

Gray, Zool. Beechey's Voyage, p. 130. pl. 36. f. 24. Hab. Senegal.

Distinguished by a very peculiar style of painting, which consists of a uniform orange-yellow irregularly freekled and spotted with black, and encircled by two narrow white bands, one next the sutures, over which the black appears in larger freekles, and one a little above the anterior or basal zone.

Species 68. (Mus. Steere.)

- OLIVA HIEROGLYPHICA. Oliv. testā oblongā, supernè tumidiusculā, spirā subacuminatā, plicis columellaribus numerosis, distinctis; eburneā, nitente, maculis hieroglyphicis fuscescentibus triseriatim cingulatā.
- The hieroglyphic Olive. Shell oblong, rather swollen round the upper part, spire slightly acuminated, columellar plaits numerous, distinct; ivory-white, shining, encircled by three rows of pale brown hieroglyphic marks.

Hab. ----?

Amply distinguished by its peculiarities of form and marking.

Species 69. (Fig. a, b, c, d, Mus. Cuming.)

OLIVA ZENOPIRA. Oliv. testá ovatá, crassá, plus minus obesá, spirá brevi, columellá obsoletè tenuiplicatá, supernè valdè callosá; eburneá, lineis subtilibus undatis medio bifasciatim cingulată, interdum griseo-fuscescente, maculis parvis aut strigis nigricantibus, cæruleoumbratis, promiscuè notată, zonă pallide castaneă ad basin, columellă albă, maculă amplă castaneă interdum tinctă.

The variable Olive. Shell ovate, thick, more or less stout, spire short, columella obsoletely finely plaited, very callous at the upper part; ivory-white, encircled round the middle with two bands of five zigzag lines, sometimes greyish-brown, promiscuously marked with blue-shaded blackish streaks or small spots, with a pale chestnut zone at the base, columella white, sometimes stained with a large chestnut blotch.

Duclos, Mon. Oliv. pl. 3. f. 11, 12. Hab. Madagascar.

The colouring of this species is so exceedingly variable, that it requires a collection of many specimens to understand the relation that subsists between the extreme conditions of it, represented in the accompanying plate.

Species 70. (Fig. a, b, Mus. Cuming; Fig. c, Mus. Metcalfe.)

- OLIVA CERULEA. Oliv. testă acuminato-oblongă, spiră exsertă, columellă arcuată, basi contortă, plicis obsoletis; albidă, cæruleo vivide tinctă, interdum fusco subtilissime punctată, suturis basique plus minus intense castaneis, apice nigricante, columellă et aperturæ fauce plerumque castaneo tinctă.
- The blue Olive. Shell acuminately oblong, spire exserted, columella arched, twisted at the base, plaits obsolete; whitish, brightly stained with blue, sometimes very finely dotted with brown, base and sutures more or less deeply stained with chestnut, apex blackish, columella and interior of the aperture generally stained with chestnut.

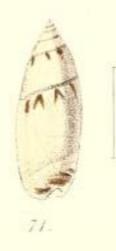
Hab. Carthagena, Central America?

An interesting small species, of mostly a bright blue porcelain character, sometimes, but rarely, finely dotted with brown, and encircled at the base with very dark chestnut.

















74.8.









74. a





Sewerby selection .

Frederic Reeve imp

PLATE XXV.

Species 71. (Mus. Steere.)

The bleached Olive. Shell acuminately oblong, rather narrow, spire exserted, sharp at the apex, columella slightly curved, plaits oblique, distant, almost faded; ivory-white, marked beneath the suture with arrow-headed brown dots, base sparingly stained with brown.

Hab. --- ?

This species appears to be distinct in respect of form, and may prove to be uniformly as colourless as the specimen here figured.

Species 72. (Fig. a, Mus. Cuming; Fig. b, Mus. Steere.)

Oliva strigata. Oliva testă ovată, tumidiusculă, Eburnæformi, spiră exsertă, columellă callosă, basi uniplicată; sordide spadiceă, strigis fuscescentibus undatis longitudinaliter pictă, columellă albă, aperturæ fauce fuscescente.

The streaked Olive. Shell ovate, rather swollen, Eburna-shaped, spire exserted, columella callous, one-plaited at the base; dull fawn-colour, painted longitudinally with light brown streaks, columella white, interior of the aperture light brown.

Hab. West Indies.

Distinguished by its Eburna-like form, and characteristic striped painting.

Species 73. (Fig. a, Mus. Cuming; Fig. b, c, d, e, Mus. Steere.)

OLIVA UNDATELLA. Oliv. testă cylindraceo-ovată, spiră breviusculă, apice acuminată, columellă basi quadriplicată, plicis planulatis, suprà multiplicată, plicis rotundatis, subdistantibus; albidă, cæruleo-griseo et fusco varie undată et nebulată, areis trigonis albidis promiscuis, interdum omnino cæruleo-nigricante, zonă basali lutescente, lineis fuscis strigată, columellă albidă, plicis basalibus sæpissime intense purpureo tinctis.

The waved Olive. Shell cylindrically ovate, spire rather short, acuminated, columella four-plaited at the base, plaits flattened, many-plaited above, plaits rounded and rather distant; whitish, variously waved and clouded with blue-grey and brown, with promiscuous whitish triangular spaces, basal zone yellowish, streaked with brown lines, columella whitish, basal plaits most frequently stained with deep purple.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 630. Varietates.

Oliva nedulina and ozodona, Duclos.

Hab. Bay of Panama (in sand and on mud banks at low water); Cuming.

It has been necessary to figure several examples of this species to show its variety of colouring, the pattern of which is sometimes disposed in promiscuous waves and sometimes in broad triangular dashes.

Species 74. (Fig. a, b, Mus. Steere.)

OLIVA ANAZORA. Oliv. testă acuminato-oblongă, subinflată, spiră exsertă, columellă superne callosă, infră arcuată, late biplicată, plicis deinde multiplicatis, plicis superioribus peculiariter interruptis, apertură basi subeffusă; cinerascente-albă, lineis fuscis acute longitudinaliter undată, zonă basali spadiceo-castaneă, columellă et aperturæ fauce purpurascente-albis.

The belted Olive. Shell acuminately oblong, rather inflated, spire exserted, columella callous at the upper part, arched beneath and broadly two-plaited, the plaits being divided into numerous other small plaits, of which the upper are peculiarly interrupted, aperture somewhat effused at the base; ash-white, sharply longitudinally waved with brown lines, basal zone fawn-chestnut, columella and interior of the aperture purplish-white.

Duclos, Mon. Oliv. pl. 5. f. 3, 4.

Hab. Xipixapi, West Columbia (in sandy mud at the depth of ten fathoms); Cuming.

This very pretty species is constantly distinguished by its delicate wave-streaked painting and dark-brown basal zone. The plaiting of the columella, as above described, is also peculiar.







Sowerin del et lich

Prederic Beave imp.

PLATE XXVI.

Species 75. (Mus. Steere.)

OLIVA PYGMÆA. Oliv. testă cylindraceo-oblongă, spiră brevi, apice acută, columellă lævigată, nisi ad basin plicată, plicis angustis, interstitiis subprofundis; aurantio-luteă, rufo-fusco varie nebulată et punctată, columellă et aperturæ fauce albis.

The pigmy Olive. Shell cylindrically oblong, spire short, sharp at the apex, columella smooth, except that it is plaited at the base, the plaits being small and the interstices between them rather deep; orange-yellow, clouded and dotted with red-brown, columella and interior of the aperture white.

Hab. --- ?

This is, perhaps, nearest allied to O. ispidula, but differs sufficiently from any of the varieties of that species.

Species 76. (Mus. Cuming.)

Oliv. testă acuminato-oblongă, tenuiculă, basi subeffusă et truncată, spiră exsertă, columellă basin versus plicată, plicis parviusculis; albidă, purpurascente-fusco late bifasciată, subpellucidă, quasi corneă, zonă angustă luteolă opacă prope ad basin.

The horny Olive. Shell acuminately oblong, rather thin, somewhat effused and truncated at the base, columella plaited towards the base, plaits rather small; whitish, broadly two-banded with purple-brown, rather transparent, as if horny, with a narrow opake yellowish band at the base.

Duclos, Mon. Oliv. pl. 2. f. 9, 10. *Hab.* ——?

A very distinct species, remarkable for its shining horny appearance, whilst the dark purple-brown bands which encircle the shell are seen through in the interior.

Species 77. (Mus. Steere.)

Oliva panniculata. Oliv. testă oblongă, superne tumidiusculă, spiră exsertă, columellă undique plicată; eburneă, purpurascente-fusco pallidissime undato-nebulată, maculis quadratis in medio et infra suturas notată.

The silk-clad Olive. Shell oblong, rather swollen round the upper part, spire exserted, columella plaited throughout; ivory-white, very faintly wave-

clouded with purplish-brown, marked round the middle and beneath the sutures in square spots.

Duclos, Mon. Oliv. pl. 5. f. 15-18.

Hab. --- ?

Very faintly marked, but well characterized by its form, and by the rows of square spots round the middle and beneath the sutures.

Species 78. (Fig. a, b, Mus. Cuming.)

OLIVA FULGIDA. Oliv. testă fusiformi-oblongă, tenuiculă, subinflată, spiră valde exsertă, basi subeffusă et truncată, basi biplicată; albă, aurantio-fusco pallidissime undato-nebulată, lineis aut maculis parvis linearibus supra et infra marginată, zonă basali callosă, lacteă.

The glittering Olive. Shell fusiformly oblong, rather thin and inflated, spire much exserted, base rather effused and truncated, columella arched, two-plaited at the base; white, very faintly wave-clouded with orange-brown, margined above and below with lines or small linear spots, basal zone callous, cream-coloured.

Hab. West Indies.

A delicately-coloured species, of which the basal zone is more than usually callous and of a clear cream-colour.

Species 79. (Mus. Cuming.)

OLIVA PICTA. Oliv. testă cylindraceo-ovată, superne tumidă, spiră brevissimă, columellă subcallosă, undique plicată; fulvo-olivaceă, fusco nebulată punctisque castaneis subtrigonis undique promiscue pictă, anfractuum margine infra suturas castaneo punctato, columellă cærulescente-albă, aperturæ fauce olivaceo-fuscă.

The painted Olive. Shell cylindrically ovate, swollen round the upper part, spire very short, columella rather callous, plaited throughout; fulvous orange, clouded with brown and everywhere promiscuously painted with subtriangular chestnut dots, edge of the whorls beneath the sutures dotted with chestnut, columella bluish-white, interior of the aperture olivebrown.

Hab. Philippine Islands; Cuming.

A characteristic new species, distinguished by its shortened cylindrical form and triangularly dotted marking. Species 80. (Fig. a, b, c, Mus. Steere.)

OLIVA TERGINA. Oliv. testa oblonga, tumidiuscula, crassa, basi truncata, spira exserta, callosa, columella arcuata, subexcavata, supernè callosa, infrà obliquè plicata; lutescente-alba aut lactea, fusco vel cæruleo-fusco densè reticulata, areis interdum interruptis, spira et zona basali immaculatis, columella et aperturæ fauce cærulescente-albis.

The hide Olive. Shell oblong, rather swollen, thick, truncated at the base, spire exserted, callous, columella arched, slightly excavated, callous at the upper part, plaited obliquely beneath; yellowish-white or cream-colour, thickly reticulated with brown or bluebrown, the spaces being sometimes interrupted, spire and basal zone unspotted, columella and interior of the aperture bluish-white.

Duclos, Mon. Oliv. pl. 2. f. 13-16.

Hab. Conchagua, Central America (on sand-banks); Cuming.

Distinguished mainly by its callous growth and dense splashy pattern of net-work.



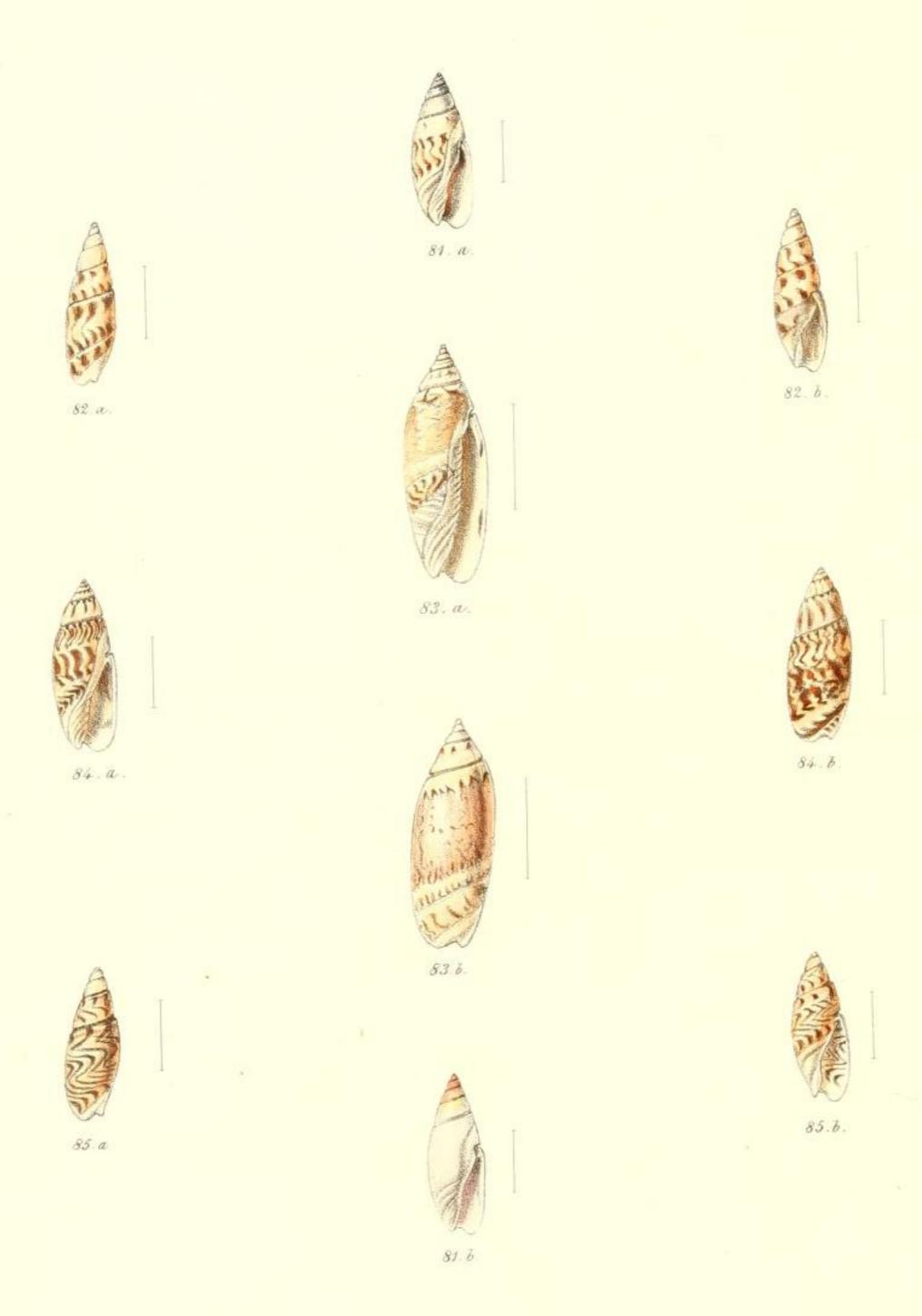


PLATE XXVII.

Species 81. (Fig. a, b, Mus. Steere.)

OLIVA ORYZA. Oliv. testă acuminato-oblongă, crassiusculă, spiră exsertă, columellă multiplicată; eburneă, lineis flexuosis fuscescentibus interdum pallidissime tinctă, apice nunc cærulescente, nunc rufo-aurantio.

The Rice-Grain Olive. Shell acuminately oblong, rather thick, spire exserted, columella many-plaited; ivory-white, sometimes faintly marked with light brown flexuous lines, apex now bluish, now reddishorange.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 631.

Hab. ——?

The colouring of the apex seems to be a characteristic feature in this species.

Species 82. (Fig. a, b, Mus. Steere.)

OLIVA TRITICEA. Oliv. testă subfusiformi, spiră valde exsertă, columellă basi obscure uniplicată, calloso-contortă; albidă, rufo-fusco conspicue tessellată et strigată.

THE WHEAT-GRAIN OLIVE. Shell somewhat fusiform, spire much exserted, columella obscurely one-plaited at the base, callously twisted; whitish, conspicuously tessellated and streaked with red-brown.

Duclos, Mon. Oliv. pl. 1. f. 3, 4.

Distinguished by its elongated form and blotchy tessellated painting.

Species 83. (Fig. a, b, Mus. Steere.)

Oliva Modesta. Oliv. testă cylindraceo-oblongă, apice acuminată, columellă rectă, multiplicată; albidă, fuscescente latifasciată, maculis punctisque fuscis promiscuè subobscure notată.

THE MODEST OLIVE. Shell cylindrically oblong, acuminated at the apex, columella straight, many-plaited;

whitish, promiscuously rather obscurely blotched and dotted with brown.

Hab. --- ?

The marking of this species bears some little resemblance to that of O. kaleontina.

Species 84. (Fig. a, b, Mus. Steere.)

Oliv. testă subacuminato-oblongă, spiră exsertă, columellă subarcuată, basi multiplicată; albă, rufo-fuscescente e suturis in strigis descendente, deinde dense variegată, anfractuum margine superno nitide castaneo punctato, basi castaneo fasciată.

The Necklace-Marked Olive. Shell somewhat acuminately oblong, spire exserted, columella slightly arched, many-plaited at the base; white, with reddish-brown descending in streaks from the sutures, then thickly variegated, upper edge of the whorls marked with a neat row of chestnut dots, with a dark chestnut band at the base.

Hab. --- ?

A shell of rather solid growth, richly streaked and variegated with reddish-brown, whilst the upper edge of the whorls presents a characteristic necklace of chestnut dots.

Species 85. (Fig. a, b, Mus. Steere.)

Oliva pellucida. Oliv. testá oblongo-ovatá, tenui, subinflatá, spirá exsertá, columellá arcuatá, basi obscurè uni-bi-plicatá; pellucido-corneá, lineis undulatis fuscis nitidè pictá, columellá basi opacá, callosá.

The transparent Olive. Shell oblong-ovate, thin, slightly inflated, spire exserted, columella arched, obscurely one-two-plaited at the base; transparent horny, neatly painted with undulating brown lines, columella opake and callous at the base.

Hab. --- ?

Very prettily painted with broadly waved red-brown lines upon a transparent ground.





























89 N

PLATE XXVIII.

Species 86. (Fig. a, b, c, Mus. Steere.)

OLIVA MUTICA. Oliv. testă ovată, subobesă, spiră breviusculă, acuminată, callosă, columellă arcuată, obscure plicată, superne valde callosă; cinerascente-albă aut griseă, lineis nigricante-fuscis plus minus distincte undulată, zonă castaneă angustă ad basin.

The beardless Olive. Shell ovate, rather stout, spire rather short, acuminated, callous, columella arched, obscurely plaited, very callous at the upper part; ash-white or greyish, more or less distinctly waved with black-brown lines, with a narrow chestnut zone at the base.

SAY, Journ. Acad. Nat. Sci. Phil. vol. ii. p. 228.

Hab. West Indies. South Carolina. Red Sea.

An extremely variable species, with a wide range of habitation. The waved lines are sometimes narrow and close-set, sometimes broader and more distant, and oftentimes they are nearly obscured by a coating of blue-grey.

Species 87. (Fig. a, b, c, Mus. Cuming.)

OLIVA MILLEPUNCTATA. Oliv. testă abbreviato-ovată, superne tumidă, spiră brevissimă, valde callosă, columellă subarcuată, basin versus obscure tenuiplicată, superne valde callosă; cinereo-fulvescente, undique minute fusco-punctată, punctis majoribus infra suturas, columellă albă, maculă castaneă tinctă.

The thousand-dotted Olive. Shell shortly ovate, swollen round the upper part, spire very short, very callous, columella slightly arched, obscurely finely plaited towards the base, very callous at the upper part; ash-fulvous, minutely dotted throughout with brown, dots larger beneath the sutures, columella white, stained with a chestnut blotch.

Duclos, Mon. Oliv. pl. 25. f. 1, 2.

Hab. West Indies.

So closely related to O. nana, that the two species almost pass one into the other.

Species 88. (Fig. a, b, Mus. Cuming.)

Oliv. testá ovatá, obesá, solidiusculá, spirá brevi, acuminatá, columellá arcuatá, obscurè tenuiplicatá, supernè callosá; albidá, castaneo-rufo latifasciatá.

The Red-Banded Olive. Shell ovate, stout, rather solid, spire short, acuminated, columella arched, obscurely finely plaited, callous at the upper part; whitish, broadly banded with chestnut-red.

Hab. --- ?

This shell agrees very nearly with one figured by M. Duclos as a variety of *O. mutica*, but it differs from that species in form as well as in its plan of colouring.

Species 89. (Fig. a, b, Mus. Steere.)

OLIVA Guildingii. Oliv. testă acuminato-oblongă, spiră exsertă, columellă arcuată, tenuiplicată; griseo-cæru-lescente, eximiè fusco strigată et punctată, anfractuum margine superno lutescente, strigis e suturis descendentibus, apice nigricante.

Guilding's Olive. Shell acuminately oblong, spire exserted, columella arched, finely plaited; grey-blue, faintly streaked and dotted with brown, upper edge of the whorls yellowish, with the streaks descending from the sutures, apex blackish.

Hab. Island of St. Vincent's. West Indies.

I dedicate this pretty species to the memory of the Rev. Lansdowne Guilding, by whom it was collected, and to whom we are indebted for so many interesting shells from the same locality.





























PLATE XXIX.

Species 90. (Fig. a, b, Mus. Steere.)

OLIVA ATTENUATA. Oliv. testá ovatá, basin versus latiusculá, apicem versus peculiariter acuminatá, columellá subarcuatá, vix plicatá, supernè callosá; pellucido-corneá, fusco-rufo latè bifasciatá.

THE ATTENUATED OLIVE. Shell ovate, rather broad towards the base, peculiarly acuminated towards the apex, columella slightly arched, scarcely plaited, callous at the upper part; transparent-horny, broadly banded with brown-red.

Hab. --- ?

This species might readily be confounded with the following from the similarity of its texture and painting, but from a comparison of numerous specimens of each I feel assured of their being distinct. The O. attenuata is uniformly more attenuated towards the apex and broader at the base, whilst the sutures of the spire are less deeply excavated, and the brown-red bands broader and lower on the shell.

Species 91. (Fig. a, b, Mus. Steere.)

OLIVA ZONALIS. Oliv. testă ovată, supra medium tumidiusculă, spiră subacuminată, columellă arcuată, basi subobscure uniplicată; semipellucido-corneă, fusco-rufo trifasciată, maculă castaneă supra columellam.

The zoned Olive. Shell ovate, rather swollen above the middle, spire slightly acuminated, columella arched, somewhat obscurely one-plaited at the base; semitransparent horny, three-banded with brown-red, with a chestnut blotch at the upper part of the columella.

Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 631. Hab. Near Acapulco, Mexico; Humboldt and Bonpland. The comparative difference in the forms of this and the preceding species is well shown by Mr. Sowerby in the accompanying figures, especially in Fig. 90 b and 91 a. The conformation of the columella varies slightly, the bands are narrower and three in number, and there is a characteristic dark blotch on the body-whorl above the columella.

Species 92. (Fig. a, b, c, Mus. Cuming; Fig. d, Mus. Steere.)

Oliva fimbriata. Oliv. testă ovată, superne tumidiusculă, spiră subexsertă, columellă arcuată, vix plicată, plicis callosis; luteo-fuscă, longitudinaliter obscure subtilissime strigată, fasciă pallidă, reticulo maculată, infra suturas.

The fringe-bordered Olive. Shell ovate, rather swollen round the upper part, spire somewhat exserted, columella arched, scarcely plaited, plaits callous; yellowish-brown, longitudinally obscurely very finely streaked, encircled beneath the sutures with a pale band, blotched with net-work.

Hab. West Indies.

This little species, which is liable to be confounded with O. mutica, has a very characteristic border of fringe-painting round the upper part of the whorls, where it has a brighter enamelled aspect and is more swollen.

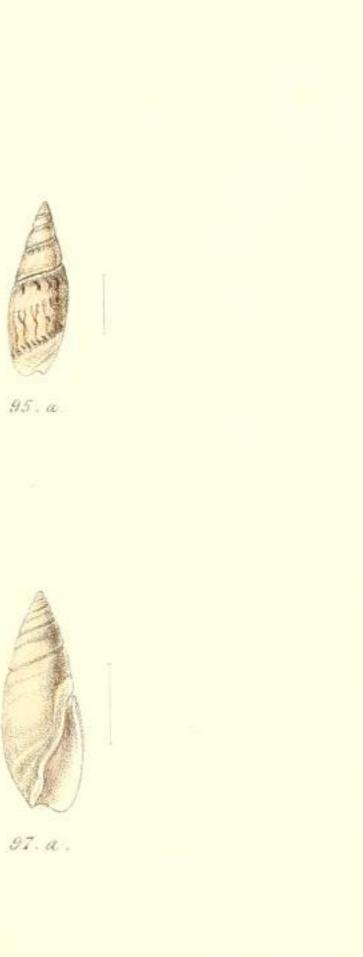
Fig. 93 a, b. (Mus. Metcalfe.)

This little shell proves on further examination to be a delicate discoloured specimen of the zigzag variety of O. mutica, represented in Pl. XXVIII. Fig. 86 b, c.



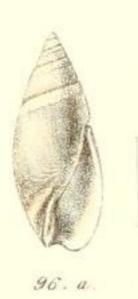


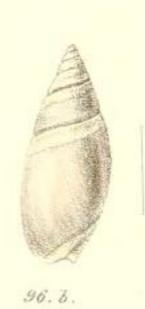
















95.6



97.8.



98.6.

Species 94. (Mus. Cuming.)

Oliv. testá subfusiformi-oblongá, spirá exsertá, columellá brevi, arcuatá, basi obscurè uniplicatá; eburneá, nitente, semipellucidá.

THE MYRIAD OLIVE. Shell somewhat fusiformly oblong, spire exserted, columella short, arched, obscurely one-plaited at the base; ivory-white, shining, semipellucid.

Duclos, Mon. Oliv. pl. 5. f. 1, 2. Hab. —?

There is no indication of colour or marking in this species, which is of a pure pellucid-white.

Species 95. (Fig. a, b, Mus. Cuming.)

Oliv. testă fusiformi-oblongă, solidiusculă, spiră valde exsertă, acuminată, columellă arcuată, basi calloso-plicată, plicis subtilibus, numerosis; albidă, fusco sparsim tenuissime lineată et seriatim punctată, punctis majoribus infra suturas.

The lanceolate Olive. Shell fusiformly oblong, rather solid, spire much exserted, acuminated, columella arched, callously plicated at the base, plaits fine, numerous; whitish, sparingly very delicately lineated and spotted in rows with brown, the dots being larger beneath the sutures.

Hab. Catanaun, Island of Luzon (in sandy mud at eight fathoms), and Loay, Island of Bohol, Philippines (at the depth of sixty fathoms); Cuming.

A delicately-marked narrow acuminated shell, of rather solid growth.

Species 96. (Fig. a, b, Mus. Cuming.)

Oliva Bullula. Oliv. testā acuminato-oblongā, tenui, subinflatā, spirā valdē exsertā, columellā arcuatā, basi subcallosā; pellucido-albā, zonā angustā opacā infra suturas.

The little bubble Olive. Shell acuminately oblong, thin, rather inflated, spire much exserted, columella arched, rather callous at the base; transparent-white, with a narrow opake zone beneath the sutures.

Hab. West Indies.

Like the smaller O. myriadina, this shell is of a thin pellucid substance without colour or marking.

Species 97. (Fig. a, b, Mus. Metcalfe.)

Oliva pura. Oliv. testá lanceolato-oblongá, spirá valdè exsertá, columellá brevi, arcuatá, basi obscurè biplicatá; pellucido-albá, ad suturas subopacá.

The pure Olive. Shell lanceolately oblong, spire very much exserted, columella short, arched, obscurely two-plaited at the base; transparent-white, slightly opake at the sutures.

Hab. --- ?

Like the preceding species this shell is of a pellucid unspotted white, but its proportions are different, being narrower, more acuminated, and more solid.

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

Oliva pulchella. Oliv. testă acuminato-oblongă, tumidiusculă, spiră exsertă, columellă arcuată, obscure multiplicată; albidă, rufo-fusco tenuissime lineată, supra et infra seriatim punctată, juxta suturas immaculată.

The pretty Olive. Shell acuminately oblong, rather swollen, spire exserted, columella arched, obscurely many-plaited; whitish, very delicately lineated and dotted in rows above and below with red-brown, unstained next the sutures.

Duclos, Mon. Oliv. pl. 5. f. 11, 12.

Hab. West Indies.

The painting of this species is very similar to that of O. lanceolata, a smaller and more slenderly acuminate shell, but it differs in having spots invariably removed from the sutures.

Species 99. (Mus. Steere.)

Oliva rosolina. Oliva testă ovată, subventricosă, Tornatellæformi, spiră brevi, apice elată, columellă brevi, superne callosă, basi calloso-contortă; albidă, lineis flexuosis fuscescentibus eximie notată, basi columellæ intense roseă.

The rose-tipped Olive. Shell ovate, slightly ventricose, Tornatella-shaped, spire short, raised at the apex, columella short, callous at the upper part, callously twisted at the base; whitish, delicately marked with faint brown flexuous lines, base of the columella deep rose.

Duclos, Mon. Oliv. pl. 1. f. 1, 2.

Hab. West Indies.

Remarkably distinguished from all other species of the genus by its *Tornatella*-like form, and by the rich pink colouring of the base of the columella.



	Plate	Susafair 1		774	145 CO. 140 CO.
acuminata, Lamarck	XVI.	Species.	fulminans, Lamarck	VII.	Species.
anazora, Duclos	XXV.	74	funebralis, Lamarck	VII.	10
Ancillarioides, Reeve	XXI.	55	fusiformis, Lamarck	VIII.	11
aquatilis, Reeve	XVIII.	38	gibbosa (Voluta), Born	VIII.	12
araneosa, Lamarck	X.	16	gracilis, Brod. & Sow	XX.	46
Athenia, Duclos	XXII.	60	Guildingii, Reeve	XXVIII.	89
attenuata, Reeve	XXIX.	90	guttata, Lamarck	XIV.	30
auricularia, Duclos	XVIII.	38	harpularia, Lamarck	XIV.	28
auricularia, Lamarck	XVIII.	39	hiatula (Voluta), Gmelin	XVIII.	35
australis, Duclos	XIX.	42	hieroglyphica, Reeve	XXIV.	68
bicincta, Lamarck	XV.	31	Indusica, Reeve	XIX.	43
biplicata, Sowerby	XX.	48	inflata, Lamarck	XV.	31
Brasiliensis, Chemnitz	VIII.	13	irisans, Lamarck	VI.	8
bulbiformis, Duclos	XIII.	26	ispidula (Voluta), Linnæus	XVII.	34
bullula, Reeve	XXX.	96	jaspidea, Duclos	XIX.	44
cærulea, Wood	XXI.	54	jaspidea (Voluta), Gmelin	XXII.	58
candida, Lamarck	XVII.	34	Julieta, Duclos	IX.	15
carneola, Lamarck	XXII.	60	kaleontina, Duclos	XX.	49
Caroliniana, Duclos	XIII.	26	lanceolata, Reeve	XXX.	95
cincta, Reeve	XIX.	47	lentiginosa, Reeve	XIX.	45
cingulata, Chemnitz	VIII.	12	leucophæa, Lamarck	XIV.	30
claneophila, Duclos	XVIII.	39	leucostoma, Duclos	VII.	10
columellaris, Sowerby	XXIII.	62	leucozonias, Gray	XXIV.	67
conoidalis, Lamarek	XXII.	58	ligneola, Reeve	XXI.	57
contortuplicata, Reeve	XX.	51	lineolata, Gray	XXIII.	63
cruenta (Voluta), Dillwyn	XIV.	30	literata, Lamarck	XI.	18
Cumingii, Reeve	XI.	19	lugubris, Duclos	XIII.	24
cyanea, Reeve	XXIV.	70	luteola, Lamarck	XVI.	33
dactyliola, Duclos	Х1П.	26	Macleaya, Duclos	VII.	10
dama, Duclos	XXIII.	63	maculata, Duclos	XIV.	30
dealbata, Reeve	XXV.	71	mantichora, Duclos	XIV.	30
Duclosi, Reeve	XIX.	44	Maura, Lamarck	VII.	10
eburnea, Lamarck	XXIII.	64	millepunctata, Duclos	XXVIII.	87
elegans, Lamarck	XII.	20	modesta, Reeve	XXVII.	83
episcopalis, Lamarck	XIII.	24	monilifera, Reeve	XXVII.	84
erythrostoma, Lamarck	V.	7	multiplicata, Reeve	XX.	5.2
Esther, Duclos	XXIII.	65	mustelina, Lamarck	XIII.	23
fimbriata, Reeve	XXIX.	92	mutica, Say	XXVIII.	86
flammulata, Lamarck	XIX.	41	myriadina, Duclos	XXX.	94
flaveola, Duclos	XVII.	34	nana, Lamarck	XXIII.	66
fulgida, Reeve	XXVI.	78	nebulosa, Lamarck	XVI.	32

	Plate.	Species.		Plate.	Species.
nedulina, Duclos	XXV.	73	Senegalensis, Lamarck	IX.	14
nivea (Voluta), Gmelin	XXIII.	64	sepulturalis, Lamarck	VII.	10
nobilis, Reeve	II.	3	splendidula, Sowerby	XI.	17
obesina, Duclos	X.	16	Stainforthii, Reeve	XIX.	40
Olympiadina, Duclos	III.	5	stellata, Duclos	XVII.	34
oriola, Lamarek	XVII.	34	Steeriæ, Reeve	XVIII.	37
oryza, Lamarck	XXVII.	81	strigata, Reeve	XXV.	72
ozodona, Duclos	XXV.	73	subulata, Lamarck	XVI.	100
panniculata, Duclos	XXVI.	77	tergina, Duclos	XXVI.	80
patula, Sowerby	XVIII.	39	tessellata, Lamarek	XX.	53
paxillus, Reeve	XXI.	56	testacea, Lamarck	XVIII.	36
pellucida, Reeve	XXVII.	85	textilina, Lamarck	VI.	9
Peruviana, Lamarck	IX.	14	tigridella, Duclos	XVII.	34
Philantha, Duclos	XII.	22	tigrina, Lamarck	XII.	21
picta, Reeve	XXVI.	79	Timoria, Duclos	Χ.	16
pindarina, Duclos	X.	16	todosina, Duclos	XXII.	6.0
polpasta, Duclos	XIV.	29	tremulina, Lamarck	IV.	6
ponderosa, Duclos	II.	4	tricolor, Lamarck	XII.	22
pulchella, Duclos	XXX.	98	triticea, Duclos	XXVII.	82
pura, Reeve	XXX.	97	undata, Lamarck	XV.	31
pygmæa, Reeve	XXVI.	75	undatella, Lamarck	XXV.	73
reticularis, Lamarck	X.	16	utriculus, Chemnitz	VIII.	12
rosolina, Duclos	XXX.	99	venulata, Duclos	X	16
rufifasciata, Reeve	XXVIII.	88	volutella, Lamarck	XXI.	54
rufula, Duclos	XX.	50	Volvarioides, Duclos	XXII.	5.9
sanguinolenta, Lamarck	XIII.	25	zanoeta, Duclos	XXVI.	76
scripta, Lamarck	XIV.	27	zenopira, Duclos	XXIV.	69
semistriata, Gray	XXIII.	61	zonalis, Lamarck	XXIX.	91

ERRATUM.

Species 70. For O. carulea, read O. cyanea.