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CONCHOLOGIA ICONICA:

OR,

ILLUSTRATIONS

OF THE

SHELLS OF MOLLUSCOUS ANIMALS.

VOL. XIX.

CONTAINING MONOGRAPHS OF THE GENERA

HELICINA,
PANOPÆA,
SCALARIA,
CUMINGIA,
GLYCYMERIS,
CYPRINA,
ANATINELLA,
PLICATULA,
EMARGINULA,
GNATHODON

EMODIA,
RIMULA,
CARDILIA,
CRANOPUS AND
ZEPHYRA,
TYPHIS,
PLEUROFOMARIA,
GALBOMMA,
SCINTILLA,
STOMATELLA,

STOMATIA,
GENA,
SOLEN,
ADEORBIS,
TEINOSTOMA,
BRODERIUA,
CULTELLUS,
CYCLOSTREMA,
PHARUS.

MEGASPIRA,
CHILINA,
PHYSA,
SOLECURTUS,
PETRICOLA,
ASTARTE,
VENERUPIS,
PANDORA,
TRICHOPTROPIS.

BY

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COVENT GARDEN.

MONOGRAPH

OF THE GENUS

HELICINA.

BY
G. P. HALL.



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HELICINA.

PLATE I.

Genus HELICINA (Cuv.)

Testa 7.5 mm. (3.5 mm. high) 10.5 mm. diam. at base, 11.5 mm. at aperture. *Aperture* 5.5 mm. diam. *Spire* 1.5 mm. high. *Color* brown, with a yellowish tinge.

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Shell 11.5 mm. diam. at base, 12.5 mm. at aperture. *Aperture* 5.5 mm. diam. *Spire* 1.5 mm. high. *Color* brown, with a yellowish tinge.

conical, whorls small, few, last whorl rather lens-shaped, very obtusely angular in the middle-ventral callus rather than, columella aculeated, oblique; outer lip narrow, reflected, yellow, sinuously depressed above, notched with an inward flange below at the columella.

PSY. Mem. II., p. 35, t. 4, f. 6, 7.

R. Cuba.

Species 2. (Fig. a, b, Mus. Nodis.)

HELICINA SUBMARGINATA. *Hel. to th glabrescens depressa*. *Testa* 10.5 mm. (5.5 mm. high) 11.5 mm. diam. at base, 12.5 mm. at aperture. *Aperture* 5.5 mm. diam. *Spire* 1.5 mm. high. *Color* brown, with a yellowish tinge.

THE SUBMARGINATA HELICINA. Shell globose-subdepressed, brown, or red generally bordered at the suture with yellow, spirally puncture-striated, spire rather conical, with rather large convex whorls, apex obtuse, last whorl inflated, obscurely angulate on the middle; ventral callus large, white, sinuously depressed, oblique, aculeated; outer lip narrow, sinuously depressed below at the columella.

PSY. Mem. II., p. 68, t. 6, f. 11.

R. Cuba.

Species 3. (Fig. c, d, Mus. Nodis.)

HELICINA SUBMARGINATA. *Hel. to th angulata, crassa, subdepressa*. *Testa* 10.5 mm. (5.5 mm. high) 11.5 mm. diam. at base, 12.5 mm. at aperture. *Aperture* 5.5 mm. diam. *Spire* 1.5 mm. high. *Color* brown, with a yellowish tinge.

THE SUBMARGINATA HELICINA. Shell globose-subdepressed, brown, covered sometimes with a grove of tubercles; spire depressed-conical, apex obtuse, whorls convex, ventral callus expanded, thickened, columella obliquely aculeate, outer lip white, reflected, notched below at the columella.

Oranzy, Mollusques de l'Isle Cuba.

Helicina de mureti? Pfeiffer.

R. Cuba.

Species 4. (Mus. —? Copied.)

HELICINA FUSTIVA. *Hel. testâ solidâ, angulatâ, rubrofusâ concentricè rugatâ, inter rugis rubro lineatâ, medio lato fuscâ; collo centrali lato, rubro marginato, columellâ parvâ, conicâ; labio externo lato, incrassato, infra ad columellam emarginato.*

THE FUSTIVE HELICINA. Shell solid, angular, concentrically wrinkled, with red lines between the wrinkles; banded with yellow in the middle; ventral callus yellow, bordered with red; columella small, aculeated; outer lip yellow, thickened, notched below at the columella.

ORIG. Zoology of Beechey's Voyage, p. 145, t. 38, f. 25.

Hab. —?

We have met with shells resembling this, but not such as could be considered characteristic. The original type seems to be lost.

Species 5. (Mus. Nobis.)

HELICINA OCHRACEA. *Hel. testâ obliquè angulatâ, solidâ, ochraceâ, concentricè tenuiter rugatâ; spirâ convexo-conicâ, obtusâ; ultimo anfractu medio subangulato; collo centrali expanso, crasso; columellâ obliquâ, parvâ, subulterulari; labio externo supra subsinuato, medio expanso, fere in lobum producto, ad columellam emarginato.*

THE OCHRACEOUS HELICINA. Shell obliquely angular, solid, ochraceous, concentrically finely wrinkled; spire convex-conical, obtuse; last whorl rather angular in the middle; ventral callus expanded, thick, columella oblique, small, subulterular; outer lip subsinuous above, expanded in the middle, and produced almost into a lobe, emarginated at the columella.

POPY. Mem. p. 112, t. 11, f. 1-1.

Hab. Cuba.

Species 6. (Mus. Brit.)

HELICINA PALLIATA. *Hel. testâ subglobosâ, medio-crêter tenui, fusco-rubescenti; spirâ conicâ, subarminatâ; anfractibus subplanatis, ultimo anfractu magno, collo centrali tenui, expanso, columellâ brevi, conicâ; apertura magis, labio externo incrassato, lato, infra ad columellam emarginato.*

THE GLOABED HELICINA. Shell sub-globose, moderately thin, reddish-brown; spire conical, subarminated; whorls rather flattened, last whorl large, ventral callus thin, expanded, columella short,

aculeated; aperture large, outer lip orange, broad, notched below at the columella.

C. B. ADAMS. Contributions to Conchology.

Helicina vitreobabris (var.). C. B. Adams.

Helicina albedobris (var.). C. B. Adams.

Helicina consanguinea, C. B. Adams.

Hab. Jamaica.

The above variations are scarcely of specific importance. The mouth is larger than in *Helicina Browni*.

Species 7. (Mus. Nobis.)

HELICINA MICROSTOMA. *Hel. testâ depressâ, tenuisculâ, pallidâ (sæl fuscâ inter magis cicâ) fulvâ; spirâ depresso-conicâ; ultimo anfractu depresso, collo centrali rotundo, columellâ obliquè aculeatâ; apertura lata, compressâ, labio externo reflexo, superne flexuosâ in depresso, infra ad columellam profunde inciso-emarginato.*

THE SMALL-MOUTHED HELICINA. Shell depressed, rather thin, pale (but more brightly in bands) fulvous; spire depressed-conical; last whorl depressed, ventral callus rounded, columella obliquely aculeated; aperture broad, compressed, outer lip reflected flexuous, depressed above, with a deeply cut notch below at the columella.

C. B. ADAMS. New York Lycæum.

Hab. Jamaica.

A species easily known by the flexuosely depressed form of its outer lip, and other peculiarities.

Species 8. (Fig. a, b, Mus. Brit.)

HELICINA MACULENTA. *Hel. testâ albâ, compressâ, semi-pellucidâ; spirâ parvâ, anfractibus paulo convexis; collo centrali inconspicuo; columellâ parvâ, obliquè aculeatâ; apertura depressâ, labio externo superne arcuato, infra prope columellam solidè flexuosa.*

THE LEAN HELICINA. Shell white, compressed, semi-pellucid; spire small, whorls a little convex; ventral callus inconspicuous; columella small, obliquely aculeated; aperture depressed, outer lip arched, strongly flexuous below, near the columella.

C. B. ADAMS. Contributions to Conchology.

Hab. Jamaica.

A pretty little species, remarkable for its depressed form, and a strong flexure in the lower part of the outer lip near the juncture.



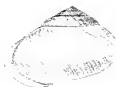
9^a



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11



12^a



13^a



13^b



14^b



15^a



15



16

coloured, or with two broad bands of reddish-brown, and a red line in the middle; inner lip toothed at the end; outer lip broad, thick, toothed at the middle, notched at the juncture.

MOELLEI. Testacea Nov.

Hab. Cuba.

Species 14. (Fig. a, and fig. b, Pl. III., Mus. Brit.)

HELICINA MAJOR. *Hel. testâ subrotundâ, levigatâ, rubrâ, infâ albâ; spirâ conicâ; aperturâ semilunari, lobio interno albo, calloso; lobio externo subcompilato, albo, ad juncturam leviter emarginato.*

THE LARGER HELICINA. Shell rather rounded, smooth, red, whitish below; spire conical; aperture semilunar, inner lip white, callous; outer lip rather flattened, white, slightly notched at the juncture.

GRAY. Zool. Journ., vol. i. p. 68, pl. 6, f. 10.

Helicina Goussi (var.), Pfeiffer.

Helicina nobilis (var.), C. B. Adams.

Hab. Jamaica.

With the general form and appearance of *H. Brownii*.

this species is larger, and instead of an incised notch it is only slightly emarginated at the juncture of the two lips.

Species 15. (Mus. Cuning in Brit.)

HELICINA FULCHERRIMA. *Hel. depresso-subrotundâ, latofusâ, leviter rugatâ, medio rubro anilineatâ; spirâ obtusâ, subrotundâ; lobio externo albido, supernè subcontracto; ad mediâ subproducto; ad juncturam emarginato.*

THE VERY BEAUTIFUL HELICINA. Shell rather rounded, depressed, yellowish-brown, slightly wrinkled, with a single red line in the centre; spire obtuse, a little rounded, outer lip whitish, a little contracted above, a little produced in the middle; notched at the juncture.

LEA. Trans. Amer. Phil. Soc., vol. v., pl. 19, f. 57.

Helicina crassa, D'Orbigny.

Hab. Cuba.

The surface is sometimes covered by a slightly hairy epidermis.



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a

b

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HELICINA.—PLATE III.

SHU TLEWORTH: Sowerby's The-saurus Conchyliorum.
Helicina (2nd) Pl. III. f. 109, 110.

Hab. Cuba.

A very pretty example of the light trochiform group.

Species 20. (Mus. —?)

HELICINA SIXTOSA. *Hel. testâ solidâ, albâ, subtrochiformi, superiôrè conicâ, inferiôrè retundato-subovata, spirâliter striatâ, medio angustatum subcarinata; aperturâ suboviformi, labiis externis rotundis, superiôrè sinuatis depressis, prope juncturam anticam sinuatis; labio interno antice in columellam tortuam, posticè in plicam callosam terminanti.*

THE SIXTOSUS HELICINA. Shell solid, white, somewhat trochiform, conical above, rounded and a little compressed beneath, spirally striated, slightly keeled in the middle of the whorls, aperture somewhat auriform, outer lip round, sinuously depressed above, sinuated near the anterior junction, inner lip terminating anteriorly in a tortuous columella, posteriorly in a callous fold.

PELLEER. Zeitsch. für Malak. 1830.

Hab. Mexico.

The aperture of this species is most curiously formed, a sinuous depression in the upper part of the outer lip and a callous semicircular plait on the inner lip near the junction, forming together a kind of loop.

Species 21. (Mus. Brit.)

HELICINA MAXIMA. *Hel. testâ latâ, subcompressâ, levigatâ, albâ; spirâ paulo elevata, angustâ ultimâ compresso-retundatâ, collo centrali capitato, columellâ brevi; aperturâ semilunari, labio externo capitato, reflexo.*

THE VERY LARGE HELICINA. Shell broad, sub-compressed, smooth, white; spire a little elevated, last whorl compressed, rounded; ventral callus expanded, columella short; aperture semilunar, outer lip expanded, reflected.

SOWERBY. Proc. Zool. Soc. 1812. Thes. Conch., pl. i. f. 2.
Hab. Jamaica.

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

HELICINA ENCAVATA. *Hel. testâ trochiformi, fâbrâ, spirâliter striatâ; spirâ moderatè elevata, acuminatâ, apice mucronatâ; ultimâ angustâ retundato-subdepressa; aperturâ subrotundâ, intus curvâ, labiis externis trani, planatis, reflexis, columellâ subtriangulâ, excavatâ.*

THE ENCAVATED HELICINA. Shell trochiform, fulvous, spirally striated; spire moderately elevated, acuminated; apex mucronated; last whorl rounded, subdepressed; aperture rather rounded, golden within; outer lip thin, flattened, reflected; columella subtriangular, excavated.

PELLEER. Proc. Zool. Soc. 1835.

Hab. —?

Species 23. (Fig. a, b, Mus. Brit.)

HELICINA ADAMSIANA. *Hel. testâ parvâ, rubescenti, lenticulari, levigatâ; spirâ convexè depressâ, oblique leviter striatâ, labio externo albo superiôrè depresso, inferiôrè prope juncturam tumidissimo, subflexo, columellâ brevissimo, arcuatâ.*

THE ADAMSIAN HELICINA. Shell small, reddish, lenticular, smooth, spire convexly depressed, obliquely slightly striated, outer lip white, depressed above, rather swelled below near the junction, subflexuous, columella very short, curved.

PELLEER. Proc. Zool. Soc. 1812. Sowerby's The-saurus, fig. 71, 72.

Hab. Jamaica.



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a

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b



a



b

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HELICINA.

PLATE IV.



Helicina scissa. (Mus. Brit.)
Helicina scissa. (Mus. Brit.)
 The aperture HELICINA. Shell thin, smooth, umbilico-convex, space depressed conical; last whorl rather depressed, slightly angular; outer lip thin, slightly notched near the columella, produced in the middle; columella trigonal.
 FIG. 27. Zouschelt Malak., 1850. Sowerby's Thesaurus Conchylorum.
Hel. — — ?

Species 27. (Mus. Sowerby.)



Helicina testis. (Mus. Brit.)
Helicina testis. (Mus. Brit.)
 The aperture HELICINA. Shell thick, depressed-conical, umbilico-convex beneath, obliquely finely angular; space obtuse, whorls depressed, rod; last whorl angular in the middle, banded with a line of red below the angle; inner lip bevelled, rounded, callous; columella with a single tooth; outer lip white, thick, wide, flattened, depressed above, a little excavated above the middle, produced at the middle, slightly notched in its junction with the columella; operculum red.
 FIG. 28. Mem. p. 110. Sowerby's Thes. Conch. fig. 2.
Hel. — — ?

Species 29. (Mus. Brit.)

Helicina testis. (Mus. Brit.)
Helicina testis. (Mus. Brit.)

Species 28. (Fig. a, b, Mus. Brit.)

Helicina testis. (Mus. Brit.)
Helicina testis. (Mus. Brit.)

vel fusco-fulvâ; spirâ depresso-conicâ, anfractibus parvis, levibus; ultimo anfractu compresso, medio rotundo, columellâ trigonâ, labio externo albo, tenui, ad juncturam rîc emarginato.

- THE THICK-LIPPED HELICINA. Shell subcompressed, thin, yellowish or rose-fulvous; spire depressed-conical, with small, short whorls; last whorl compressed, rounded in the middle, columella trigonal, outer lip white, thin, scarcely emarginated at the junction.
- C. B. ADAMS. Contributions to Conchology, vol. vi, p. 93.
Hab. Jamaica.

Species 29. (Fig. a, b, Mus. Brit.)

HELICINA ROTUNDA. *Hel. testâ heliciformi, subglobosâ, laticâ, superâ fusco-rubescenti, laevigatâ, tenuisculâ; spirâ sublobatâ, lateribus convexis, anfractibus parvis; ultimo anfractu subpresso; callo centrali subrotundato; columellâ brevi, subtrigoniâ; apertura semilunari; labio externo tenui, reflexo, ad juncturam rîc emarginato.*

- THE ROUNDED HELICINA. Shell heliciform, subglobose, yellowish, reddish-brown above, smooth, rather thin, spire slightly elevated, with convex sides, whorls small; last whorl a little depressed; ventral callus rounded, columella short, a little trigonal; aperture semilunar; outer lip thin, reflected, scarcely emarginated at the junction.

D'ORBIGNY. Mollusques de l'île de Cuba, p. 252.
Hab. Cuba.

Species 30. (Mus. Brit.)

HELICINA VIRGINIA. *Hel. testâ globosâ, solidâ, superâ acuminatâ, inferâ rotundâ, spirâliter striatâ; spirâ elevatâ, microscotâ; apertura semilunari; labio columellari infri medium lato, excavato; labio externo intus incrassato, ad marginem acuto, infri medium producto; operculo crasso, cæcis granuloso.*

- THE VIRGIN HELICINA. Shell globose, solid, acuminate above, rounded beneath, spirally striated; spire elevated, microscote; aperture semilunar, columellar lip below the middle wide, excavated; outer lip thickened within, sharp at the edge, produced beneath the middle; operculum thick, granular outside.

LEA. Obs. on Union and other Land Shells, vol. i, p. 162, t. 19, f. 58.

Helicina ussultina, Ferrussac.
Hab. Cuba.

Species 31. (Mus. Brit.)

HELICINA MEGALOMA. *Hel. testâ subglobosâ, tenui, levigatâ; fulvâ vel cubeo-fuscâ; spirâ elevatâ, conicâ; ultimo anfractu rotundato; callo centrali subrotundato, apertura majusculâ; columellâ parvâ, acutâ; labio externo rotundo, angustâ, ad juncturam leviter emarginato.*

- THE LARGE-SHOULDER HELICINA. Shell subglobose, thin, smooth; fulvous or reddish-brown; spire elevated, conical, last whorl rounded; ventral callus rather rounded; aperture rather large, columella small, sharp; outer lip rounded, narrow, slightly emarginated at the junction.

C. B. ADAMS. Contributions to Conchology.

Helicina affinis, C. B. Adams (var. ?).

Hab. Jamaica.

Species 32. (Mus. Brit.)

HELICINA LITORALIS. *Hel. testâ subtrochiformi, tenui, levigatâ, fusco-rubescenti; spirâ conicâ; ultimo anfractu rotundo; columellâ parvâ, trigoniâ; labio externo superâ declivi, lato, planato, tenui, subspanso, ad juncturam leviter emarginato.*

- THE LITORAL HELICINA. Shell somewhat trochiform, thin, smooth, reddish-brown; spire conical, last whorl rounded; columella small, trigonal, outer lip sloped above, yellow, flat, thin, a little expanded, slightly notched at the junction.

GUNDELACH. — ?

Hab. Barraetas, Cuba.

Species 33. (Mus. Brit.)

HELICINA CRASSICOSTATA. *Hel. testâ compresso-globosâ, albâ, crassâ, spirâliter crebri costatâ; columellâ latâ, subexcavatâ, rectâsculâ; apertura subrotundâ ad juncturam intus plicatâ; labio externo lato, planato, superâ rîc depresso.*

- THE THICK-RIBBED HELICINA. Shell compressed-globose, white, thick, spirally closely ribbed; columella broad, sub-excavated, rather straight; aperture somewhat beaked, with an interior plait at the juncture; outer lip broad, flattened, very slightly depressed above.

SOEWERY. Thesaurus Conchyliorum, Helenna, Species 61, Plate III., f. 97.

Hab. — ?

The locality of this apparently unique shell is unknown.





extremo superi solidi et infra paulo sinuata emarginato, hinc trilobato; lobis medianis productis, linguiformis.

THE BOVAL HELICINA. Shell large, globose, spirally striated, variously painted, spire conical, whorls rather convex; columella flattened, subtrigonal; outer lip above notch, and below a little sinuously emarginated, thus trilobate, middle lobe produced, tongue-shaped.

MORLET, Test. Nov. 10.

Helicina angulicollata, Pöy (var. f. 1013).

Helicina multistriata, Velasquez.

Helicina maculosa, Newcombe.

Hab. Cuba.

Species 39. (Mus. Brit.)

HELICINA ELIMATA. *Hel. testis subglobosa, fusco-rubescens; spiris convexis; ultimo angusta rotunda, infra subdepressa; columella minuta, quasi crenata; lobis exterioribus oblique productis, ad juncturam acriori, paulo emarginato.*

THE REFLECTED HELICINA. Shell subglobose, reddish-brown; spire convex; last whorl rounded, slightly depressed below; columella very small, as it were drawn back; outer lip anteriorly obliquely produced, sloped upwards at the junction, a little emarginated.

PÖY, Mém. vol. i. p. 116, tab. 12, fig. 20-26.

Hab. Cayajabos, Cuba.

Species 40. (Mus. Brit.)

HELICINA SPICULI. *Hel. testis subrosa, solida; spiris subpyramidalibus, lateribus planulatis; callo centrali tenui, parvo; columella trigona, lobis exterioribus anguste reflexis, ad juncturam lacer emarginato.*

SPICULI'S HELICINA. Shell rather pink, solid; spire

subpyramidal, with flattened sides; ventral callus thin, small, columella trigonal, outer lip narrowly reflected, slightly emarginated at the junction.

PREDER, Proc. Zool. Soc. 1857.

Hab. Tarapota, Andes.

Species 41. (Mus. Brit.)

HELICINA OESSEGENA. *Hel. testis subgloboso-compressa, fusco-fuscescens, spiris latioribus; angusta ultimo rotundo-depressa; columella parva, trigona; lobis exterioribus anguste reflexis, ad juncturam raris emarginato.*

THE MOUNTAIN-BOVAL HELICINA. Shell subglobose-compressed, pinky-brown, spire lenticular; last whorl roundly depressed; columella small, trigonal; outer lip narrowly reflected, scarcely emarginated at the junction.

D'ORRIGNY, Synopsis, p. 28.

Hab. Bolivia.

Species 42. (Mus. Brit.)

HELICINA SETIFUSA. *Hel. testis compressa, subangulata, succinea; spiris depresso-conicis, ultimo angusta depresso-subangulata; callo centrali subrotundo, columella parva, dentata; lobis exterioribus tenui, parvis eductissimis paulo emarginato.*

THE BROWNISH HELICINA. Shell compressed, rather angular, amber-colored; spire depressed-conical; last whorl depressed-subangular; ventral callus rather rounded; columella small, tooth-shaped; outer lip thin, a little emarginated near the columella.

MENKE, Synopsis, p. 79.

Helicina rotellina (var.) Pöy et Michaud.

Helicina Hoenbckii (var.) Philippi.

Hab. Porto Rico.





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HELICINA.—PLATE VI.

Species 48. (Fig. *a, b*, Mus. Brit.)

HELICINA EXACTA. *Hel. testâ stannicâ, levî, trochiliformi; spirâ subdepressa, acuminatâ; ultimo anfractu infâ medium angulatâ, convexâ carinatâ, aperturâ subtriangulâ, labiâ interno robusto, columellâ obliquâ, labiâ externo infâ medium angulatâ.*

THE STRAW-COLOURED HELICINA. Shell straw-coloured, smooth, trochiform; spire subdepressed, acuminate; last whorl angular below the middle, neatly keeled; aperture subtriangular, inner lip red, columella oblique, outer lip angular below the middle.

POLY. Mem. II. p. 114.

Helicina Stannicæ, Moricand.

Hab. Cuba.

Species 49. (Fig. *a, b*, Mus. Brit.)

HELICINA CONODEA. *Hel. testâ parvâ, albâ, depresso-trochiliformi; anfractibus planiusculis, angustis, ultimo anfractu subdepresso, infâ medium acutâ angulatâ; aperturâ parvâ, labiâ externo superâ declivi, medio angulatâ, infâ subrotundâ*

THE CONE-SHAPED HELICINA. Shell small, whitish, depressed, trochiform; whorls rather flat, narrow, last whorls depressed, sharply angular below the middle; aperture small, outer lip sloped above, angular in the middle, a little rounded below.

PHELLEE. Proc. Zool. Soc. 1853.

Hab. Bartolocos.

Species 50 (Mus. Brit.)

HELICINA SUTURIFERA. *Hel. testâ parvâ, tenui, rictâ, subtrochiliformi; spirâ acuminatâ, conicâ, anfractibus superâ excavatis, medio angulatâ, ultimo anfractu infâ convexo; columellâ rotundâ, aculeatâ.*

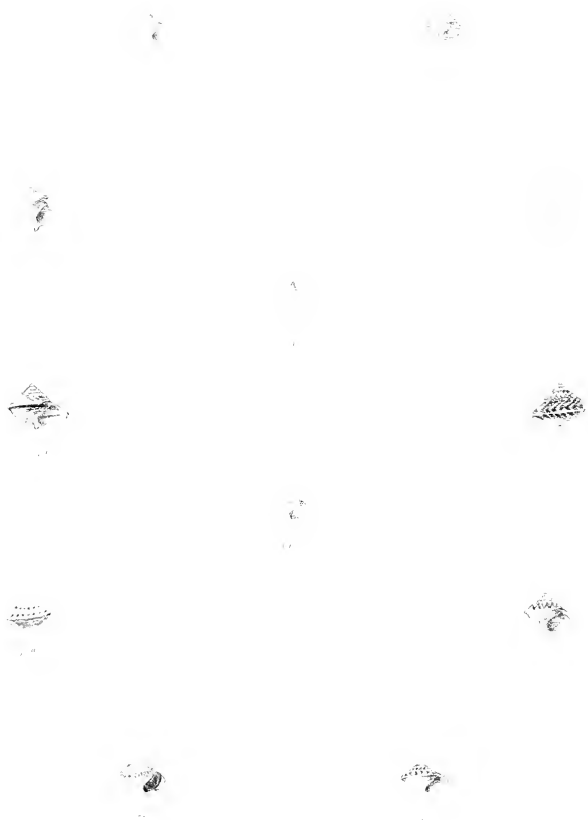
THE SUTURED HELICINA. Shell small, thin, green, subtrochiform; spire acuminate, conical, whorls excavated above, angular in the middle, last whorl convex; columella rounded, beak-shaped.

SOWERBY. *Thesaurus Conchyliorum*, Part 25. Helicina, sp. 103, Pl. V. f. 185.

Hab. — ?

A light, thin, horny species with the whorls curiously hollowed above and angular in the centre.





conical above, convex beneath, sharply carinated in the middle, golden, with a single red line below the keel, or purple, obliquely striped, ornamented with red spots at the suture and keel; columella small, produced into a sharp spine; outer lip white, reflected, angular and produced in the middle.

PELLERÉ, Proc. Zool. Soc., 1855.

Hab. Solomon's Is.

Both varieties of this species are very beautiful.

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

HELICINA SPAVIS. *Hel. testâ conici, medio carinata, infra carinam compresso-concavâ; aurâ, et suturam extrinsecum maculis parvis rubris, infra carinam lineâ rubra notatâ, et purpureâ superâ cubo reticulatâ; apertura medio infusiq; angulatâ.*

THE PLEASANT HELICINA. Shell conical, keeled in the middle, compressed-convex below the keel; golden, marked at the suture and keel with small red spots, below the keel with a red line, or purple reticulated above with red; aperture angular above and beneath.

PELLERÉ, Proc. Zool. Soc., 1856.

Hab. Admiralty Island.

One of the prettiest of the species, more elevated and less compressed than the preceding, and without a spine at the lower angle of the mouth.

Species 57. (Mus. Brit.)

HELICINA ANGULATA. *Hel. testâ compressâ, superâ obtusè conici, infra lenticulari, medio carinata, carinâ fulvescens, supra et paulo infra carinam strigis parvis notatâ; columellâ paulo excavatâ, infra spinosâ; labio externo medio angulato.*

THE ANGULAR HELICINA. Shell compressed, obtusely conical above, lenticular beneath, keeled in the middle, all over brownish, above and a little under the keel marked with small stripes; columella a little arched, spiniferous beneath; outer lip angular in the middle.

SOWERBY, THE SAURIUS Conchyliorum, sp. 245, fig. 114.

Hab. Brazil.

Species 58. (Mus. Brit.)

HELICINA SUTURALIS. *Hel. testâ compressâ, lenticulari, pallidè luteâ, medio acutè carinata, supra carinam cubo obliquè strigato; apertura acutè angulatâ, labio externo acuto.*

THE SUTURAL HELICINA. Shell compressed, lenticular, pale yellow, sharply keeled in the middle, obliquely striped with red above the keel; aperture sharply angular, outer lip sharp.

MARTENS, Berlin Academy, 1861.

Hab. Amboyna, Ceram.

This little lenticular shell appears to be full-grown, but has no signs of thickening or reflexion in the outer lip.





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HELICINA.—PLATE VIII.

*omnino albi; spiræ elevatâ, acuminatâ, infractâ
ultima rotundâ, labiâ externa reflexâ.*

THE TERMINATED HELICINA. Shell globose-conical, whitish, banded with red, or fulvous, reddish above, or altogether white; spire elevated, acuminated, last whorl rounded, outer lip reflected.

WEDGMAN. In Menke's Synopsis.

Helicina Braudtii, Pfeiffer.

Hab. Mexico.

Species 64. (Fig. *a, b*, Mus. Brit.)

HELICINA CHEYSSERIANA. *Hel. testâ angustâ, pyramidatâ,
elevatâ, acuminatâ, brevî, rosâ-fulvâ, nannuiputâ*

apicè rubrâ; aperturâ parvâ, intus vicinè rubro-aurâ; labiâ externa anticè productâ, reflexâ, labiâ columellari crassiusculâ, columellâ minutâ.

THE GOLDEN-SPOUTED HELICINA. Shell narrow, pyramidal, elevated, acuminated, smooth, pinky-white, sometimes pink-tipped; aperture small, bright-reddish golden within; outer lip anteriorly produced, reflected, columellar lip rather thick, columella extremely small.

POLY. Mem. Cub. I., tab. 25, f. 14-19.

Hab. Cuba.

The most pyramidal of all the species





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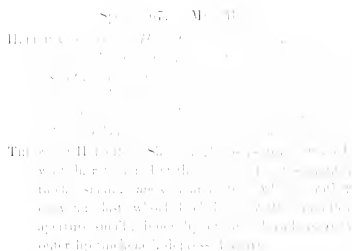
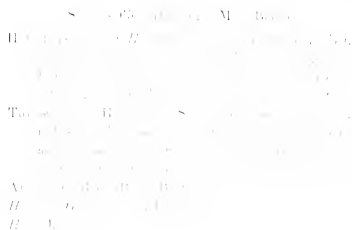
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HELICINA.

PLATE IX.



WELLSIANI —
Hel. Bahamas.

Species 68. (Mus. Brit.)

HELICINA NITIDA. *Hel. testâ depressa, pulcra, tenuisculâ, supra depresso-conicâ, infra lenticulari; columellâ*

posticâ testâ, subconicâ; laticâ, utrinque ovata, ut testâ, supra testâ, conicâ, sub.

THE SIMILAR HELICINA. Shell depressed, fulvous, rather than, depression above, lenticular beneath; aperture small, trigonal, acuminate; outer lip narrow, slightly notched in front of the columella.

PLATE IX. WELLSIANI. Archives, 1839.

Hel. *testâ ovata, Gould*

Hel. Cuba.

The outer lip in this species is not reflected.

Species 69. (Mus. Brit.)

HELICINA PASTORIS. *Hel. testâ abglobosâ, pallidâ, supra depresso-conicâ, infra depresso-subglobosâ, columellâ posticâ, testâ, supra testâ, subconicâ, subaperturâ, supra testâ, supra testâ, supra testâ.*

THE SIMILAR HELICINA. Shell subglobose, pale; spire raised, conical; last whorl depressed and slightly flattened behind the columella; columella small, conical; outer lip a little expanded, semicircular, slightly notched in front of the columella.

PLATE IX. PASTORIS. Sæp., 1845.

Hel. S. Beach Islands.

Species 70. (Mus. Brit.)

HELICINA PASTORIS. *Hel. testâ abglobosâ, pallidâ, supra depresso-conicâ, infra depresso-subglobosâ, aperturâ angustâ, semicirculari, labâ externa angustâ et late lateraliter productâ, ant. columellâ, posticâ, supra testâ, supra testâ, supra testâ, supra testâ.*

THE SIMILAR HELICINA. Shell subglobose, pale, opaque, single-landed with brown above; spire conical; last whorl depressed-subglobose, aperture large, semicircular; outer lip narrowly reflected, laterally produced, a little notched in front of the columella; columella small, trigonal, flattened.

GÜNDLACH, Pfeiffer Malak., 1859.

Hel. Cuba.

The spire is more raised and the semicircular mouth larger and more laterally produced than in *Helicina luciniosa*.

HELICINA.—PLATE IX.

Species 71. (Mus. Brit.)

HELICINA STRIATULA. *Hel. testâ parvâ, obliquè concentricè striatâ, rubescenti, superiùè depresso-conicâ, infriùè lenticulari; aperturâ transversè suboblongâ, labio externo albo, angusto, reflexo, infriùè paulo incrassato, cum columellâ confluenti; columellâ parvâ.*

THE STRIATED HELICINA. Shell small, obliquely concentrically striated, reddish, depressed-conical above, lenticular beneath; aperture transversely rather oblong, outer lip white, narrow, round, a little thickened below, confluent with the columella; columella small.

SOWERBY, Proc. Zool. Soc., 1812.

Hab. Martinique

Species 72. (Mus. Brit.)

HELICINA ADAMSIANA. *Hel. testâ lenticulari, depressâ, fulco rubescenti; ultimo anfractu in medio subangulato; aperturâ parvâ; labio externo albo, superiùè sinuatim depresso, infriùè propè juncturam sinuatim subincrassato.*

ADAMS'S HELICINA. Shell lenticular, depressed, reddish-fulvous; last whorl a little angular in the middle; aperture small; outer lip white, sinuously depressed above, sinuously somewhat thickened below near the juncture.

PREIFER, Proc. Zool., 1848.

Hab. Jamaica.

Species 73. (Mus. Brit.)

HELICINA FASCIATA. *Hel. testâ subdepressâ, lenticulari, albâ, rubro tenantâ et angulatum maculatâ, vel fulco latè fasciatâ; aperturâ suboblongâ; labio externo angustè reflexo, medio producto, columellâ indistinctâ.*

THE BANNED HELICINA. Shell subdepressed, lenticular, whitish, banded and angularly spotted with red, or broadly banded with fawn colour; aperture rather oblong; outer lip narrowly reflected, produced in the middle, columella indistinct.

LAMARCK, Hist. Nat. Anim. sans Vert.

Helicina picta, FERTUSSE.

Hab. Guadeloupe.

Species 74. (Mus. Brit.)

HELICINA DELIVIS. *Hel. testâ parvâ, trochiformi, pullulè rufâ, rubro superiùè et paulo infriùè cavi-*

atâ maculis rubris tessellatâ; spirâ elevatâ, lateribus convexiusculis; ultimo anfractu infriùè medio angulatâ, subcarinatâ; columellâ tenui; labio externo superiùè declivi, angustè reflexo; obliquè producta.

THE SLOPED HELICINA. Shell small, trochiform, pale fawn, tessellated above and a little below the keel with red spots; spire elevated, sides a little convex; last whorl angular and slightly keeled below the middle; columella thin; outer lip sloped above, narrowly reflected; obliquely produced.

GÜNDLACH, Pfeiffer Malak. Bl. VII., 1860.

Hab. Cuba.

Species 75. (Mus. Brit.)

HELICINA BOTELLOIDEA. *Hel. testâ parvâ, trochiformi, luteâ, flammâ rubris superiùè notatâ; anfractibus superiùè subexcavatis, medio subcarinatâ, infriùè lenticulari; columellâ triangulâ, labio externo rufè incrassato.*

THE BOTELLA-LIKE HELICINA. Shell small, trochiform, yellowish, marked above with red flames; whorls excavated above, slightly keeled in the middle, lenticular below; columella trigonal, outer lip scarcely thickened.

MIGUELS, Proc. Bost. Soc., 1815.

Hab. Sandwich Islands.

Species 76. (Fig. a, b, Mus. Brit.)

HELICINA CORONULA. *Hel. testâ compressâ, superiùè obtusissimè conicâ, infriùè lenticulari, obliquè concentricè striatâ; ultimo anfractu compresso, subangulato, ad suturam tuberculis minutissimis excavato; aperturâ oblongâ; labio externo angusto, albo, superiùè infriùèque sinuatim incrassato.*

THE LITTLE CROWN HELICINA. Shell compressed, very obtusely conical above, lenticular below, obliquely concentrically striated; last whorl compressed, rather angular, crowned at the suture with very minute tubercles; aperture oblong; outer lip narrow, white, sinuously thickened above and beneath.

SHUTTLWORTH, Pfeiffer Malak., 1862.

Hab. Jamaica.

One of the most depressed of the species which have a sinuous thickening on the upper and lower part of the outer lip.



yellowish, variously banded and spotted with red; spire subdepressed-conical; last whorl ventricose, rounded, outer lip thin, depressed above, produced and expanded in the middle.

PEIFFER, Weigman's Archives, 1839.

Helicina variegata, Orbigny.

Helicina orinata? Sowerby.

Hab. Cuba.

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

HELICINA AMPLIATA. *Hel. testâ subgloboso-conicâ, albâ, ad aperturam pallidâ aurâ, vel fuscâ rubrâ unâcâ pictâ; aperturâ subtrigoniâ, columellâ parvâ, subplanulatâ; labio externo superâ depresso et contracto, medio planulato, in linguam producto.*

THE FULL HELICINA. Shell subglobose-conical, whitish, pale golden at the aperture, or painted with a single red band; aperture subtrigonal, columella small, rather flattened; outer lip depressed and contracted above, flattened in the middle, produced into a tongue.

C. B. ADAMS, Contributions to Conchology, n. 7, p. 101.

Hab. Jamaica.

This species exhibits, in an exaggerated form, the peculiar tightening above and production in the middle of the outer lip which is in a lesser degree characteristic of *Helicina dispersa* and some others.

Species 83. (Fig. a, b, c, Mus. Brit.)

HELICINA BELLULA. *Hel. testâ parvâ, subglobosâ, luteâ, carâ rubro-fuscantâ; spirâ elevatâ, anfractibus apiculatis parvis, penultimo tumidiusculo, ultimo rotundo; aperturâ subtrigoniâ, labio externo supra medium sinuatim producto, medio tenuiter flexo.*

THE HANDSOME LITTLE HELICINA. Shell small, subglobose, yellow, variously banded with red; spire elevated, apical whorls small, the penultimate rather tumid, last rounded; aperture subtrigonal, outer lip sinuately produced above the centre, thinly reflected in the middle.

GUINDLACH, Pfeiffer Malak. Bl. VI., 1859.

Helicina subaratis (var.) Guindlach.

Helicina perispherica —? (var.)

Helicina Yunguensis —? (var.)

Hab. Cuba.

Species 84. (Fig. a, b, c, Mus. Brit.)

HELICINA CONVEXA. *Hel. testâ subglobosâ, depressâ, atricque sublenticulari, crassâ, luteâ vel albâ, fuscâ maculisque variegatâ; aperturâ subdepressâ, labio externo subrotundo, angusto, medio paulo producto.*

THE CONVEX HELICINA. Shell subglobose, depressed, rather lenticular on both sides, thick, yellow or white, variegated with bands and spots; aperture rather depressed, outer lip rather rounded, narrow, middle a little produced.

PEIFFER, Proc. Zool. Soc., 1848.

Hab. Bermuda.

Species 85. (Mus. Brit.)

HELICINA TENIATA. *Hel. testâ depresso-conicâ, tenui, luteâ, superâ rubro-anfractuatâ; spirâ subdepressâ, anfractibus parvis; ultimo anfractu inflexo lenticulari; aperturâ subtrigoniâ; labio externo paulo reflexo.*

THE BOWED HELICINA. Shell depressed-conical, thin, yellow, single red-banded above; spire subdepressed, whorls small; last whorl lenticular below; aperture subtrigonal; outer lip a little reflected.

QUOY, Voyage de l'Astrolabe, Zool. II. p. 191.

Hab. Namikoro.

Much lighter and less convex than *Helicina convexa*.

Species 86. (Mus. Brit.)

HELICINA REPANDA. *Hel. testâ parvâ, crassâ, depresso-subglobosâ, luteâ, rubro-anfractuatâ; spirâ depresso-conicâ obtusâ, anfractibus parvis, ultimo anfractu subitè rotundatâ callosa; aperturâ subtrigoniâ, labio externo superâ depresso, medio producto, infra propè juncturam emarginato.*

THE BOWED HELICINA. Shell small, thick, depressed-subglobose, yellow, single-banded with red; spire depressed convex, obtuse, whorls small, last whorl roundly callous beneath; aperture subtrigonal, outer lip depressed above, produced in the middle, emarginated below near the junction.

PEIFFER, Proc. Zool. Soc., 1855.

Hab. —?

The lower lip recedes peculiarly at its junction with the columella.



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HELICINA.

PLATE XI.

Species 87. (Mus. Brit.)

HELICINA ALBICORNIS. *Hel. testâ alba, spirâ, aperturâ, et columella albo-fulvis; spira compressa, conica, whorls striated; columella callosa, lobis internis crenatis.*

TYPE. — *Hel. testâ albâ, spirâ compressâ, conicâ, whorls striated; columella callosa, lobis internis crenatis.*

MUSEUM. — Brit. Mus., No. 1427, pl. 11.

LOCALITY. — Fiji Islands.

HAB. — Matangi, Viti Levu.

Species 88. (Mus. Brit.)

HELICINA VITAE. *Hel. testâ albâ, spirâ compressâ, conicâ, whorls striated; columella callosa, lobis internis crenatis.*

TYPE. — *Hel. testâ albâ, spirâ compressâ, conicâ, whorls striated; columella callosa, lobis internis crenatis.*

MUSEUM. — Brit. Mus., No. 1427, pl. 11.

HAB. — Fiji.

Species 89. (Mus. Brit.)

HELICINA VITAE. *Hel. testâ pallidâ, spirâ compressâ, conicâ, whorls striated; columella callosa, lobis internis crenatis.*

HELICINA FULVA. Shell very pale, fulvous, compressed, angular, spirally striated; spire conical, whorls flattened; last whorl compressed, angular in the middle; aperture subauriform,

outer lip rounded, rather angular in the middle; inner lip rounded, callous, columella short, emarginated at the end.

PHILIP. Proc. Zool. Soc., 1855.

HAB. —!

Species 90. (Mus. Lord Northampton.)

HELICINA ALBIDA. *Hel. testâ angulatâ, subcompressâ, latâ, spirâ, columella albo-fulvis; spira depresso-conica, ultimo angustâ medio acutâ, aperturâ, et columella callosa, lobis internis angulatis.*

TYPE. — *Hel. testâ angulatâ, subcompressâ, latâ, spirâ depresso-conicâ, ultimo angustâ medio acutâ, aperturâ, et columella callosa, lobis internis angulatis.*

LOCALITY. — Fiji, Nat. Anim. sans Vert.

HAB. — St. Deming.

Species 91. (Mus. Brit.)

HELICINA CUMATA. *Hel. testâ nigricâ, spirâ, depresso-conicâ, ultimo angustâ medio acutâ, aperturâ, et columella callosa, lobis internis angulatis.*

TYPE. — *Hel. testâ nigricâ, spirâ depresso-conicâ, ultimo angustâ medio acutâ, aperturâ, et columella callosa, lobis internis angulatis.*

LOCALITY. — Proc. Zool. Soc., 1847.

HAB. — Fiji Islands.

Species 92. (Mus. Brit.)

HELICINA TENUILABRIS. *Hel. testâ depresso-angulatâ, latâ, spirâ depresso-conicâ; ultimo angustâ compresso, lato, rotundatâ angulatâ, aperturâ intus subrosâ, callo columellari flavicâ,*

rotundo, columellâ minotâ, aculeatâ, labio externo tenui, superne depresso.

THE THIN-LIPPED HELICINA. Shell depressed-angular, smooth, chestnut; spire depressed-conical; last whorl compressed, wide, roundly angular; aperture pinkish within, columellar callus yellow, rounded, columella small, aculeated, outer lip thin, depressed above.

SOWERBY. *Thesaurus Conchyliorum*, Sp. 216, f. 375.

Hab. —?

A rather compressed species with no thickening or reflexion of the outer lip.

Species 93. (Mus. Sowerby.)

HELICINA NODÆ. *Hel. testâ crassâ, pallidè fulvâ, globoso-subangulatâ; spirâ depresso-conicâ; ultimo anfractu superne obliquè tenuiter rugatâ, infra convexo-cullosa, medio obtusè angulatâ; labio externo crasso, rotundatim reflexo; columellâ parvâ, brevî, intuberculum rotundum deserventi.*

NODÆ'S HELICINA. Shell thick, pale fulvous, sub-angularly globose; spire depressed-conical; last whorl finely, obliquely wrinkled above, convexly callous below, obtusely angular in the middle; outer lip thick, roundly reflected; columella small, short, ending in a rounded tubercle.

GÜNDLACH —?

Hab. Arango.

Species 94. (Fig. a, b, Mus. Brit.)

HELICINA SUBSTRATIATA. *Hel. testâ parvâ, crassâ, sub-globosâ, spirâ iter tenuissimè striatâ; spirâ convexâ; ultimo anfractu molliceri; aperturâ parvâ, subangulatâ; labio interno callosa, columellâ aculeatâ, obliquâ; labio externo crasso, reflexo, lato, duplicato.*

THE SLIGHTLY-STRIATED HELICINA. Shell small, thick, subglobose, spirally very finely striated; spire convex; last whorl of middle size; aperture small, rather angular; inner lip callous, columella aculeated, oblique; outer lip thick, reflected, broad, double.

GRAY. *Zool. Journ.*, v.

Helicina sordida, King.

Hab. Cuba.

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

HELICINA BRAZILIENSIS. *Hel. testâ subtrichiformi, tenuis, auroi, spirâ iter striatâ; spirâ convexo-*

acuminatâ, anfractibus subrotundis; ultimo anfractu subcompresso-lato, rotundo; labio externo complanato, angusto, reflexo; columellâ triangulâ, aculeatâ.

THE BRAZILIAN HELICINA. Shell subtrichiform, thin, gold-coloured, spirally striated; spire convex-acuminated, whorls rather rounded; last whorl sub-compressed, broad, rounded; outer lip flattened, narrow, reflected; columella triangular, aculeated.

GRAY. *Zool. Journ.*, i. p. 66.

Hab. Brazil.

Species 96. (Mus. Brit.)

HELICINA GRATULATA. *Hel. testâ trichiformi, stramineâ, spirâ subacuminatâ, anfractibus convexo-conicis; ultimo anfractu subcompresso, medio ventè curvato, supra infraque convexo, columellâ tenui, obliquâ; labio externo tenuissimo.*

THE PLEASANT HELICINA. Shell trichiform, straw-coloured, spire subacuminated, whorls rather convex; last whorl rather compressed, acutely keeled in the middle, convex above and below, columella thin, oblique; outer lip very thin.

BLANDFORD.

Hab. Pegu.

A pretty little light keeled species.

Species 97. (Mus. Brit.)

HELICINA AURANTIO-VIRIDIS. *Hel. testâ globoso-subcompressâ; spirâ aurantâ, parvâ, depressâ, ultimo anfractu globoso, in medio viridi viridi, propè suturam aurantio fasciatâ, labio columellari lato, excavato, aurantio acuminato; labio externo rubro-aurantio, semi-circulari.*

THE ORANGE-GREEN HELICINA. Shell globose, sub-compressed; spire orange, small, depressed, last whorl globose, bright-green in the middle, banded with orange near the suture, columellar lip broad, excavated, acuminated in a curve; outer lip orange-red, half-circular.

SOWERBY. *Thesaurus Conchyliorum*. *Helicina*, 2nd Monograph, Sp. 199, f. 580.

Helicina viridis, Sowerby (1st Monograph).

Hab. Philippines?

This beautiful little shell being of a bright green colour in the body whorl has been mistaken by several collectors for *Helicina viridis*.



HELICINA.

PLATE XII.

Species 98. (Fig. *a, b*, Mus. Brit.)

HELICINA CEAS-ILABRIS. *Hel. testâ crassa, compressâ, angulatâ, pallidâ subscatâ, apicâ callosâ, aperturâ et collo columellari avicâ; spirâ depressâ; ultimo anfractu compresso-angulato; aperturâ parvâ, collo columellari rotundo, columellâ parvâ, aculeatâ; labio externo crasso, hinc reflexo, supraâ depresso, medio obtusè angulato.*

THE THICK-LIPPED HELICINA. Shell thick, compressed, angular, pale red, apex red, aperture and columellar callus golden; spine depressed; last whorl compressed, angular; aperture small, columellar callus rounded, columella small, aculeated; outer lip thick, not reflected, depressed above, middle obtusely angular.

PHILIP. *Zeitschrift für Malak.*, 1847.

Hab. Venezuela.

A curiously flattened, thick species.

Species 99. (Mus. Brit.)

HELICINA CHITTYANA. *Hel. testâ trochiformi, acuminatâ, lincâ distinctis spirâlibus cinctâ, luteâ, viridi rubropâ lineatâ et maculatâ; ultimo anfractu medio angulato, carinâ serratâ armato; aperturâ subrotundâ, labio externo albo, lato, expanso; columellâ rotundâ, planulatâ.*

CHITTY'S HELICINA. Shell trochiform, acuminated, gilt with distant spiral ridges, yellow, spotted and lined with green and red; last whorl angular in the middle, armed with a serrated keel; aperture rather rounded; outer lip white, broad, expanded; columella rather straight, flattened.

PREIFFER. *Proc. Zool. Soc.*, 1857.

Hab. Cuba.

A more trochiform shell than *Helicina pulchella*, with the spiral striae more distant and smooth.

Species 100. (Mus. Brit.)

HELICINA PETITIANA. *Hel. testâ subtrochiformi, spirâliter striatâ, striâs rotundis, luteâ, ultimo an-*

fractu rotundato; labio externo expanso, radiatim crenulato; columellâ angustâ, rotundâ, ad terminum angulatâ.

PETIT'S HELICINA. Shell rather trochiform, spirally striated, striae rounded, yellow, last whorl rounded; outer lip expanded, radiately crenulated; columella narrow, rather straight, angular at the end.

OREIGNY. *Moll. Cub.*, i. p. 247.

Hab. Cuba.

The last whorl is more rounded than in the preceding, and the outer lip of the aperture is broad, flattened, expanded, and rayed with the rounded striae of the body.

Species 101. (Mus. Sowerby.)

HELICINA TANKERVILLI. *Hel. testâ magna, latoâ, trochiformi, spirâliter serrato-striatâ; spirâ conicâ, anfractibus convexiscentis, suprà maculis rubeis distinctis ornatis; ultimo anfractu ventricosi, in medio serrato-varinatâ, infriâ carinâ rubro lineatâ; labio externo expanso, radiatim crenulato; columellâ subrotundâ, complanatâ, cum labio externo confluenti.*

TANKERVILLE'S HELICINA. Shell large, yellow, trochiform, spirally serrato-striated; spine conical, whorls rather convex, ornamented with distant red spots above; last whorl ventricose, with a serrated keel in the middle, red-lined below the keel; outer lip expanded, radiately crenulated; columella rather tortuous, flattened, confluent with the outer lip.

GRAY. *Zoological Journal*, i. p. 250.

Hab. Jamaica.

This beautiful species was extremely rare in collections till within a comparatively recent date.

Species 102. (Fig. *a, b*, Mus. Brit.)

HELICINA OPIMA. *Hel. testâ subgloboso-trochiformi, spirâliter striatâ, albo, viridi maculatâ vel luteâ rubro maculatâ et fasciatâ; ultimo anfractu ventri-*

case; labio externo albo, angusto, planulato, columella rectiusculis.

THE FAT HELICINA. Shell subglobose-trochiform, spirally striated, white spotted with green, or yellow spotted with red; last whorl ventricose, outer lip white, narrow, flattened, columella rather straight.

SUMMELLEWORTH. Diagnosis, N. Moll., iii, p. 42.

Hab. Haiti.

More stout and ventricose than those of the same group previously described.

Species 103. (Fig. a, b, Mus. Brit.)

HELICINA PULCHRELLA. *Hel. testis trochiformi, angulata, spiritaliter gravo-striata; spira elvati, acuminata, latis, rubro laticata; ultimo anfractu infra medium angulato, serrato-carinata; labio externo expanso, radiatum crenulato; columella planulata, cum labium externum confluenti.*

THE BEAUTIFUL HELICINA. Shell trochiform, angular, spirally gravo-striated; spire elevated, acuminate-d, yellow banded with red; last whorl angular below the middle, serrato-carinated; outer lip expanded, radiately crenulated, columella flattened, confluent with the outer lip.

GRAY. Zool. Journ., i, p. 64.

Helicina grata, Wood.

Helicina Grayana, Pfeiffer.

Helicina dilatata, Poey.

Hab. Jamaica.

A well-known beautifully coloured and sculptured species.

Species 101. (Mus. Brit.)

HELICINA BOTELLA. *Hel. testis albi, compressa, angulata; spira depresso-conica, ultimo anfractu obtuse angulato; labio externo paulo reflexo, in medio paulo producto; columella parva, angusta, leviter angulata, cum labium externum confluenti.*

THE BOTELLA HELICINA. Shell white, compressed, angular; spire depressed-conical, last whorl obtusely angular; outer lip a little reflected, a little produced in the middle; columella small, narrow, slightly angular, confluent with the outer lip.

SOWERBY. THESAUROS CONCHYLORUM. Helicina, 2nd Monog., No. 265, fig. 358.

Hab. New Hebrides.

Species 105. (Mus. Brit.)

HELICINA GRATIOSA. *Hel. testis angulata, fusca; spira conica, elevati, anfractibus concavissimis, ultimo anfractu medio obtuse angulato, infra angulum concavissimo, post columellam spiritaliter subcavoato; apertura intus rubro marginata; labio externo angusto, reflexo; columella parva, aculata.*

THE GRATEFUL HELICINA. Shell angular, brown; spire conical, elevated, whorls rather convex, last whorl obtusely angular in the middle, rather convex, spirally a little excavated behind the columella; aperture red-bordered within; outer lip narrow, reflected; columella small, aculeated.

PFEIFFER. Proc. Zool. Soc., 1856.

Hab. Admiralty Island.

Species 106. (Mus. Brit.)

HELICINA COSTATA. *Hel. testis globoso-acuminata, solida, alba, spiritaliter striata; spira elvati, acuminata; ultimo anfractu rotundo, ventricoso; apertura parva, intus latis, labio externo incrassato, superius declivi; columella triquetra, subplanulata.*

THE RIBBED HELICINA. Shell globose-acuminate, solid, white, spirally striated; spire elevated, acuminate; last whorl rounded, ventricose; aperture small, yellow within, outer lip thickened, sloped above; columella trigonal, a little flattened.

GRAY. Zool. Journ., i, p. 67, t. 6, fig. 8.

Hab. Jamaica.

Species 107. (Mus. Brit.)

HELICINA SIMILARATA. *Hel. testis subglobose, alba, solida, superius spiritaliter et sub-livata, infra levigata; spira acuminata, anfractibus concavissimis; ultimo anfractu ventricoso, medio angulato, carinato; labio externo planulato, paulo expanso; columella planulata, angusta, cum labium externum confluenti.*

THE HALF-RIBBED HELICINA. Shell subglobose, white, solid, spirally closely-ridged above, smooth beneath; spire acuminate, whorls rather convex; last whorl ventricose, angular in the middle, keeled; outer lip flattened, a little expanded; columella flattened, narrow, confluent with the outer lip.

PFEIFFER. Proc. Zool. Soc., 1848.

Hab. Venezuela.



107 a



110 a



110 b



108



110 c



110 d



109



112



111



107

aperture subtriangular, outer lip white, reflected; columella subtriangular, small; apex elevated.

PELLÉ. Proc. Zool. Soc., 1856.
Hab. Mexico.

A more solid shell than *Helicina Heloise*, with a more elevated spire.

Species 111. (Fig. a, b, Mus. Brit.)

HELICINA HELOISE. *Hel. testâ globoso-conicâ, levitâ, nunquam superne dividitâ purpureo fasciatâ; spirâ conicâ, anfractibus distinctis, rotundis; apertura parvâ, labio externo reflexo, tenui, columellâ crassiusculâ, latâ, subarcuatâ.*

HELICINE'S HELICINA. Shell globosely-conical, yellow, sometimes banded with brown half way above; spire conical, with distinct rounded whorls; aperture small, outer lip reflected, thin, columella rather thick, broad, rather arched.

SALLÉ. Proc. Zool. Soc., 1856.
Hab. Mexico.

Species 112. (Mus. Brit.)

HELICINA LINDENI. *Hel. testâ tenui, subtrichiformi, obscure angulatâ, fusco-cinerea, superne maculis*

punctisque nebulis variegatâ, vel albâ, apice mucronato, anfractibus quinque; apertura subauriformi, intus vel ad marginem curvâ, labio externo tenuiter reflexo; columellâ breviusculâ, angulatâ.

LINDEN'S HELICINA. Shell thin, rather trochiform, obscurely narrowed, ash-brown variegated above with clouded spots and dots, or white; apex mucronate, whorls five; aperture subauriform, golden within or at the margin; outer lip thinly reflected; columella rather short, angular.

PELLE. Zeitschrift für Malacologia, 1847, p. 126.
Hab. Mexico.

Species 113. (Mus. Brit.)

HELICINA PELLUCIDA. *Hel. testâ parvâ, subconicâ, pellucidâ, subcivili; spirâ elevatâ, anfractibus quatuor, parvis; ultimo anfractu rotundo; apertura subtriangulâ, columellâ erectiusculâ, brevi; labio externo tenui reflexo.*

THE PELLUCID HELICINA. Shell small, subconical, pellucid, rather green; spire elevated, whorls four, small, last whorl rounded; aperture subtriangular; columella rather straight, short; outer lip thin, reflected.

SOEWERY. Thes. Conch. (1st monograph), fig. 40.
Hab. French Guiana.



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102



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HELICINA.

PLATE XIV.

Species 114. (Mus. Brit.)

HELICINA CAVINDSA. *Hel. testâ sessâ levî, pallidâ lacteo-fulvâ, spirâ conica, acuminatâ; ultimo anfractu angustiuscula, rotunda, apertura angustiuscula, semiovariâ, cancellâ costâ, angustâ, aculeatâ, labio externo saeviuscula, tenui, cylindrico, ad columellam crescenti.*

THE LITTLE HELICINA. Shell single-coiled, pale milky-fawn, spire conical, acuminate; last whorl rather narrow, rounded; aperture rather large, semiovariate; columella straight, narrow, pointed, outer lip semicircular, thin, reflected, very slightly notched at the columella.

MURLEYS. Proc. Bost. Soc., 1845.

Hab. Sandwich Islands.

Species 115. (Mus. Brit.)

HELICINA DEPRESSA. *Hel. testâ parvâ, albâ, utroque compressâ; spirâ parvâ, depressâ; ultimo anfractu lato; apertura latâ, brevi, labio externo superne sinuatis depresso, infra apud columellam submarginato, margine angustâ, rotundâ.*

THE DERESSED HELICINA. Shell small, white, compressed on each side; spire small, depressed; the last whorl broad; aperture broad, short, outer lip sinuously depressed above, slightly notched below against the columella, margin narrow, rounded.

GRAY. Zoological Journal, vol. 1, p. 69.

Hab. Jamaica.

Species 116. (Mus. Brit.)

HELICINA LINEATA. *Hel. testâ parvâ, rotundâ depressâ, medio angulatâ, pallidâ fulvâ, spirâ leviter sulcatâ; spirâ brevissimâ; colloventrali rotundato, columella parvâ, aculeatâ, labio externo supra injurque in dentem tumidam incrassatum.*

THE LINEATED HELICINA. Shell small, much depressed, angular in the middle, pale fulvous, spirally grooved; spire very short; ventral callos rounded, columella small, aculeated, outer lip thickened above and below into a thickened tooth.

C. B. ADAMS. Proc. Bost. Soc.

Hab. Jamaica.

Species 117. (Mus. Brit.)

HELICINA SEMISTRIATA. *Hel. testâ minutâ, depressâ angulatâ, superne dimidiatim spirâ leviter depressâ, infra levigatâ; spirâ brevissimâ, apertura subtriangulâ; labio externo prope columellam incrassato.*

THE HALF-STRIPATED HELICINA. Shell minute, depressed, angular, spirally sinuously depressed, smooth below; spire very short; aperture subtriangular; outer lip swelled near the columella below.

SOWERBY. Thesaurus Conchyliorum. Helicina, Sp. 54, fig. 86.

Hab. —?

A curious little lenticular species striated or grooved only on the upper half. Otherwise resembling Species 116.

Species 118. (Fig. a, b, Mus. Brit.)

HELICINA VINOVA. *Hel. testâ minutâ, depressâ, obliquè sulcatâ, pallidâ vinoso-fulvâ; apertura parvâ, superne depressâ; labio externo tenui, prope columellam infra tumido.*

THE VINOUS HELICINA. Shell minute, depressed, obliquely sulcated, pale vinous brown; aperture small, depressed above; outer lip thin, tumid near the columella below.

SHUTTLEWORTH. —?

Hab. Porto Rico.

August, 1873.

HELICINA.—PLATE XIV.

Species 119. (Fig. *a, b*, Mus. Brit.)

HELICINA PLICATULA. *Hel. testis parva, pallide fulva, subcompressa, concentricè obliquè lirata; collo columellari expanso, rotundo; apertura parva, labio exterioro supra inflexique depresso, tumidiusculo.*

THE PLATED HELICINA. Shell small, pale fulvous, sub-compressed, concentrically obliquely ridged; columellar callus expanded, rounded; aperture small, outer lip depressed and simously rather tumid above and below.

PELLER. Proc. Zool. Soc., 1848.

Hab. Martinique.

Species 120. (Fig. *a, b*, Mus. Brit.)

HELICINA REGOSA. *Hel. testis minutâ, rotundè depressâ, pallide fulvâ, liris obliquis, crebris, sculptâ; apertura parvâ, labio exterioro supra inflexique depresso, sinuatim tumido, superè declivi.*

THE REGOSE HELICINA. Shell minute, much depressed, pale fulvous, sculptured with oblique, close ridges; aperture small, outer lip depressed, and simously tumid above and below, the upper part sloped.

PELLER. Weigman Archives.

Hab. Trinidad.

Species 121. (Fig. *a, b*, Mus. Brit.)

HELICINA LEMEA. *Hel. testis minutâ, acutè angulatâ, depressâ, spiralliter subulatâ, medio carinatâ, fulvohescenti; collo ventrali tenui, subplanulatâ, apertura trigonâ, labio exterioro supra medianum angulatâ, supra inflexique propè juncturam sinuatim tumidiusculo.*

THE EDGED HELICINA. Shell minute, acutely angular, depressed, spirally grooved, keeled in the middle, reddish-fulvous; ventral callus thin, rather flattened, aperture trigonal, outer lip angular above the middle, rather simously tumid above and below near the juncture.

PELLER. Zeitschrift für Mal., 1847.

Hab. Yucatan.

More angular and depressed than *Hel. unidentata*.

Species 122 (Mus. Brit.)

HELICINA EMBENTATA. *Hel. testis minutâ, supra sub-conico-depressâ, infra subrotundâ, medio angulatâ, subcarinatâ, spiralliter subulatâ; apertura subtrigonâ,*

labio exterioro, rotundo, angusto, infra propè columellam unidentatâ.

THE SINGLE-TOOTHED HELICINA. Shell minute, conically depressed above, a little rounded beneath, angular, subcarinated in the middle, spirally grooved; aperture subtrigonal, outer lip rounded, narrow, with a single tooth on the lower part near the columella.

PELLER. Proc. Zool. Soc., 1848.

Hab. Honduras.

Species 123. (Mus. Brit.)

HELICINA INEQUALIS. *Hel. testis parvâ, trochiformâ, flavidâ, spiralliter tenuiter striatâ; spirâ elevatâ, apice mucronatâ; ultimo anfractu alto, medio angulatâ, subcarinatâ; apertura parvâ, subtrigonâ, labio exterioro albo, reflexo, medio dorsi cuneato, supra declivi, depresso, acutè unidentatâ, infra acutissimè unidentatâ, cum columellâ confluenti.*

THE UNEQUAL HELICINA. Shell small, trochiform, yellowish, spirally finely striated; spire elevated, apex mucronate, last whorl raised, angular in the middle, subcarinate; aperture small, subtrigonal, outer lip white, reflected, obtusely cuneate in the middle, sloped above, depressed, with a single sharp tooth, very sharply unidentate below, confluent with the columella.

PELLER. Proc. Zool. Soc., 1848.

Hab. Jamaica.

Resembling the common species *H. auricola*, but more narrow and elevated.

Species 124. (Fig. *a, b*, Mus. Brit.)

HELICINA AURICOLA. *Hel. testis subgloboseâ, auricâ, vel subauricâ, obscure angulatâ, spiralliter tenuiter subulatâ; spirâ laterè convexâ, apice mucronatâ; apertura contractâ, labio exterioro superè depresso, unidentatâ, supra medianum angulatâ, infra acutè unidentatâ, cum columellâ confluenti.*

THE GOLDEN HELICINA. Shell subglobose, golden or reddish, obscurely angular, spirally finely grooved; spire laterally convex, apex mucronate; aperture contracted, outer lip depressed, unidentate above, angular above the middle, sharply unidentate below, confluent with the columella.

PELLER. — ?

Hab. Jamaica.



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134



135



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HELICINA.

PLATE XV.

Species 125. (Mus. Brit.)

HELICINA HELDENSIS. *Hel. testis rotundiuscula, apert. leviter spirali ter striata, col. albica. Col. umbilico leviter spirali ter striata, apex leviter spirali, apertura triangulari contracta, labio externo angulari in medio, sharply single-toothed; columella confluent with the outer lip.*

THE THREE-TOOTHED HELICINA. Shell minute, angular, spirally finely striated above, beaded in the middle with a serrated keel; spire conical, elevated; aperture trigonal, contracted; outer lip angular in the middle, sharply single-toothed; columella confluent with the outer lip.

SMITHSONIAN. — ?

Hab. Jamaica.

Species 126. (Mus. Brit.)

HELICINA INDIANA. *Hel. testis ovata, leviter imbricata, pariete leviter carinata. Spira leviter striata, supra leviter striata, infra leviter striata, umbilico leviter striata; apertura triangulari contracta, labio externo angulari in medio, sharply single-toothed; columella confluent with the outer lip.*

THE WAVY HELICINA. Shell globose, variegated with purplish-brown, spirally wavyly striated, laterally convex above, with a serrated keel in the middle, rounded below; aperture contracted; outer lip white, depressed above, with a single tooth above and below.

PELLEU. Malak., Bl. viii.

Hab. Jamaica.

Very closely connected with *Helicina an. col.*, but differing in having the spiral striae undulated.

Species 127. (Mus. Brit.)

HELICINA ELEGANTULA. *Hel. parisi, testis trochiformi, leviter elevata, intricatibus quatuor et quinque, distinctis, infra ultimam rotundatis, apice acuminata; apertura ultimam leviter pressa, obtuse unguilata; apertura parisi, subtriangula, labio externo leviter reflexo.*

THE ELEGANT LITTLE HELICINA. Shell small, brown, trochiform, smooth; spire elevated, whorls four or five, distinct, rounded below the middle, apex acuminated; last whorl rather depressed, obtusely

angular, aperture smooth, subtriangular, outer lip thin, reflected.

PELLEU. Zeitschrift f. Malak., 1850, p. 76.
Hab. Haiti.

Species 128. (Mus. Brit.)

HELICINA TROCHILIA. *Hel. testis subrotunda, trochiformi, subdepressa, medio unguilata, carinata, supra carina spirali ter striata, fusco-nigrescenti fasciata, apice rubra; apertura subtriangula, labio externo leviter.*

THE WINDFESS HELICINA. Shell minute, trochiform, subdepressed, angular, carinated in the middle, spirally ridged above; the keel, bandol with blackish-brown, apex red; aperture subtriangular, outer lip thin.

GOULD. Proc. Bost. Soc., 1847, p. 202.

Hab. Isl. Antioea.

Species 129. (Mus. Brit.)

HELICINA TRICAMATA. *Hel. testis parva, trochiformi, leviter, spirali ter leviter carinata, quarum tubus medianus marginibus cincta; spira elevata, angustata, carinata, apertura leviter aurata, columella parisi, alba, labio externo albo, angulata.*

THE THREE-KEELED HELICINA. Shell small, trochiform, yellowish, spirally girt with keel-like ridges of which the three middle ones are the larger; spire elevated, whorls keeled; aperture golden within, columella small, white, outer lip white, narrow.

SUALLA. Trans. Conch., 2nd Monograph, species 73.

Hab. — ?

Species 130. (Mus. Brit.)

HELICINA RUBICUNDA. *Hel. testis trochiformi, leviter elevata, acuminata, spirali ter creberrimata, spira elevata, acuminata; apertura subtriangula, columella recta, angustata, acuminata, labio externo leviter reflexo.*

THE REDDISH HELICINA. Shell trochiform, reddish-brown, acuminated, spirally closely ribbed, spire elevated, mucronate, aperture subtriangular, columella straight, narrow, acuminated, outer lip thinly reflected.

GRONLUND. Präffer, Malak., Bl. iv, 1857.

Hab. Cuba.

Species 131. (Mus. Brit.)

HELICINA RUFESTRIS. *Hel. testâ parvâ, subaurâ, trochiformâ, spirâliter striatâ; spirâ elevatâ, mucronatâ, apicè aculeatâ, ultimo anfractu depresso, subrotundo; aperturâ subtrigona, columellâ angustâ, obliquâ; labiâ externo rix reflexo.*

THE ROCK HELICINA. Shell small, rather golden, trochiform, spirally striated, spire elevated, mucronate, apex aculeated, last whorl depressed, rather rounded; aperture subtrigonal, columella narrow, oblique, outer lip very little reflected.

PEFFER. Weigman's Archives f. Nat., 1839.

Hab. Cuba.

This little shell much resembles *Helicina rubicunda*, but the last whorl is more depressed and the outer lip is much narrower.

Species 132. (Mus. Brit.)

HELICINA LITTOREOLA. *Hel. testâ parvâ, crassâ, globosâ, albâ, spirâliter striatâ; spirâ elevatâ, apicè mucronatâ, ultimo anfractu rotundo; aperturâ parvâ, labiâ externo, labiâ externo superne declivi, depresso, obliquè producto.*

THE SHORE HELICINA. Shell small, thick, globose, whitish, spirally striated; spire elevated, apex mucronate, last whorl rounded; aperture small, golden within, outer lip sloped, depressed, obliquely produced above.

GÜNDLACH. Pfeiffer Malak., Bl. vii. 1860.

Hab. Cuba.

A stout little white-ribbed shell.

Species 133. (Mus. Brit.)

HELICINA ELEGANS. *Hel. testâ elegantè trochiformi, fulvâ, levî, angulatâ; spirâ elevatâ, acuminatâ; anfractu ultimo sublevisso, medio angulato; aperturâ intus subaurâ, subtrigonâ, columellâ albiâ, angustissimâ, obliquâ; labiâ externo paulò reflexo.*

THE ELEGANT HELICINA. Shell elegantly trochiform, fulvous, smooth, angular; spire elevated, acuminate; last whorl a little depressed, angular in the middle; aperture rather golden within, subtrigonal columella white, very narrow, oblique; outer lip a little reflected.

FOERESNY (Alcide). Mollusques de Cuba.

Helicina conica, Pfeiffer.

Hab. Cuba.

Species 134. (Mus. Brit.)

HELICINA CALLOSA. *Hel. testâ fulvâ, parvâ, trochiformi, levigatâ, angulatâ; spirâ elevatâ, conicâ, apicè acuminatâ; ultimo anfractu medio angulato, superiâ columellâ calli rotundo, producto, albo incrustrato, aperturâ trigonâ, labiâ externo tenuiter reflexo.*

THE CALLOUS HELICINA. Shell fulvous, small, trochiform, smooth, angular; spire elevated, conical, apex acuminate; last whorl angular in the middle, thickened by a rounded, produced, white callus above the columella, aperture trigonal, outer lip thinly reflected.

POLY. Moll. 1, p. 132, T. 33, f. 13-15.

Hab. Cuba.

Distinguished from the preceding and other trochiform small species by the projecting callus on the aperture edge of the body whorl.

Species 135. (Mus. Brit.)

HELICINA PETIOSA. *Hel. testâ parvâ, trochiformi, aurâ, spirâliter tenuiter striatâ; spirâ mucronatâ, anfractibus paulò convexis; ultimo anfractu medio subangulato; aperturâ subtrigonâ, columellâ tenui, obliquâ; labiâ externo tenui, leviter reflexo.*

THE STONY HELICINA. Shell small, trochiform, golden-yellow, spirally finely striated; spire mucronate, whorls rather convex; last whorl rather angular in the middle; aperture subtrigonal, columella thin, oblique; outer lip thin, gently reflected.

GÜNDLACH. Pfeiffer Malak., iv. 1857.

Hab. Cuba.

Species 136. (Mus. Brit.)

HELICINA CAPILLATA. *Hel. testâ parvâ, trochiformi, fuscâ, spirâliter striis setosis cinctâ; spirâ conicâ, moderate elevatâ; ultimo anfractu subdepresso, medio subangulato; aperturâ subtrigonâ, labiâ externo tenui.*

THE HAIRY HELICINA. Shell small, trochiform, brown, spirally girt with hairy striae; spire conical, moderately elevated; last whorl rather depressed, slightly angular in the middle; aperture subtrigonal, outer lip thin.

PEFFER. Malak., Bl. iv. 1857.

Hab. Cuba.



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116



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HELICINA.

PLATE XVI

Species 147. (Mus. Brit.)

HELICINA ELONGATA. *Hel. testâ pyramidalâ, levigatâ, ciliatâ, fulvâ, trochiformi, spirâ elevatâ, acuminatâ, angustibus siccis rotundis, distantibus; ultimo anfractu medio angulato, apertura subtriangulâ, columellâ rectâ ciliatâ, spirâ ciliatâ ciliatâ, labio ciliato, ultimo anfractu medio angulato.*

THE ELONGATED HELICINA. Shell pyramidal, smooth, pale fulvous, trochiform; spire elevated, acuminated, whorls straight at the apex; last whorl angular in the middle; aperture subtriangular, columella rather straight, rather wavy above, tapering below; outer lip sharply angular in the middle.

D'ORBIGNY (Alcide). Sowerby. *Thes. Conch.*, 2nd Monog. Sp. 96, fig. 158.

Hab. Cuba.

A very pyramidal species with straight-sided whorls.

Species 148. (Mus. Brit.)

HELICINA DISCHIDATA. *Hel. testâ parvâ, trochiformi, albida, levigatâ, spirâ elevatâ, acuminatâ; ultimo anfractu medio angulato; apertura subtriangulâ, columellâ ciliatâ, labio ciliato, ultimo anfractu medio angulato.*

THE THIN WINDASS HELICINA. Shell small, trochiform, whitish, smooth; spire elevated, acuminated, last whorl rather rounded; aperture subtriangular; columella arched; outer lip thin.

D'ORBIGNY (Alcide). *Moll. Isl. Cuba*, p. 249.

Hab. Cuba.

Smaller, less pyramidal and less angular than the preceding.

Species 149. (Fig. a, b, Mus. Brit.)

HELICINA COLOMBIANA. *Hel. testâ globoso-convexâ, solidâ, fusco-rufescenti, vel ferruginea, vel pallidissime atreâ in fasciâ latâ ciliatâ; spirâ convexâ, apice acuminatâ, apertura subtriangulâ, labio ciliato expanso, reflexo, columellâ parvâ, subtriangulâ.*

THE COLOMBIAN HELICINA. Shell globose-convex, rather solid, bed-d with reddish-brown, or gray, or very pale yellow in broad bands; spire conical, apex acuminated, aperture semilunar, outer lip expanded, reflected, columella small, subtriangular.

PHILIPPI. *Pflf. Monog.*, Sp. 186.

Hab. West Columbia.

Species 140. (Mus. Brit.)

HELICINA MEXICANA. *Hel. testâ fulvâ, subglobosa, convexâ, subtriangulâ, spirâ elevatâ, angustibus siccis rotundis, distantibus; ultimo anfractu subgloboso, breviusculo; apertura parvâ; labio ciliato paulo reflexo.*

THE MEXICAN HELICINA. Shell fulvous, subglobose, sometimes yellow beneath; spire elevated, whorls six, rounded, distant; last whorl subglobose, rather short; aperture small, outer lip a little reflected.

SALLÉ. *Proc. Zool. Soc.*, 1855.

Hab. Mexico.

Species 141. (Fig. a, b, Mus. Brit.)

HELICINA PARANIS. *Hel. testâ parvâ, pallidâ, flavidâ, convexâ-globosâ, tenui, levigatâ; spirâ convexâ, angustibus parvis, paulo convexis; apertura parvâ, trapazoidâ, labio ciliato tenuiter reflexo.*

THE PARA HELICINA. Shell small, pale yellow, globose-convex, thin, smooth; spire conical, whorls few, a little convex; aperture small, trapezoidal, outer lip thinly reflected.

PHILIPPI. *Proc. Zool. Soc.*, 1859.

Hab. Para. Brazil.

Species 142. (Fig. a, b, Mus. Brit.)

HELICINA ALTA. *Hel. testâ parvâ, globoso-subtriangulâ, atreâ, fuscâ, vel flavido-subviridâ; spirâ elevatâ, subconvexâ; ultimo anfractu breviusculo, rotundo;*

August, 1873.

aperturâ subtrigoniâ, labio externo paulò reflexo; columellâ parvâ.

THE ELEVATED HELICINA. Shell small, globosely sub-attenuated, brown, or greenish-yellow; spire elevated, rather conical; last whorl rather short, rounded; aperture subtrigonal outer lip a little reflected, columella small.

SOWLEY. *Thesaurus Conchyliorum*. Helicina. 2nd Monograph, Sp. 151, figs. 251, 252.

Hab. Porto Rico.

Species 143. (Mus. Brit.)

HELICINA CORBILLERÆ. *Hel. testâ globoso-subdepressâ, tenui, levigatâ, pallidè fulvâ, medio anfractuâ junctis tribus spirâlibus rubris tenuatâ; spirâ acuminatâ, ultimo anfractu subdepressâ; aperturâ obliquè semilunari, columellâ brevissimâ, callo columellari expanso, labio externo reflexo, planulato.*

THE CORBILLERÆ HELICINA. Shell globosely subdepressed, thin, smooth, pale fulvous, striped with three spiral red bands; spire acuminate, last whorl subdepressed; aperture obliquely semilunar, columella very short, columellar callus expanded, outer lip reflected.

SALLÉ. *Pf. Proc. Zool. Soc.*, 1856.

Hab. Cordillera, Mexico.

Species 144. (Mus. Brit.)

HELICINA OWENIANA. *Hel. testâ globoso-conicâ, solidâ, levigatâ, fulvâ, nomenclaturâ superne dimidiatâ*

rubrâ; spirâ conicâ, elevatâ, anfractibus lateraliter rotâsculis; aperturâ parvâ, pyriformi, planulatâ, auranteo-rubrâ; columellâ superne subcomplanatâ.

OWEN'S HELICINA. Shell globosely conical, solid, smooth, fulvous, the upper half sometimes red; spire conical, elevated; whorls rather straight at the sides; aperture small, pyriform, flattened, orange-red; columella rather flattened above.

PFEIFFER. *Proc. Zool. Soc.*, 1848.

Hab. Mexico.

Among the globosely conical species distinguished by its orange-red rim.

Species 145. (Fig. a, b, Mus. Brit.)

HELICINA FLAVIDA. *Hel. testâ subglobosâ, levigatâ, flavidâ, lineâ rubrâ medio anfractuâ ornatâ; spirâ obtusiusculâ; aperturâ parvâ, subtrigoniâ; columellâ albâ, angustâ, cum labio externo confluatâ; labio externo angustè reflexo.*

THE YELLOW HELICINA. Shell subglobosely, smooth, yellowish, ornamented with a red line in the middle of the whorls; spire rather obtuse; aperture small, subtrigonal; columella white, narrow, confluent with the outer lip; outer lip narrowly reflected.

MEXEL. *Syn. Ed. II.*, p. 79.

Helicina tessula, Moricand. (var. ?)

Hab. Guatemala.



HELICINA.

PLATE XVII.

Species 146. (Mus. Brit.)

HELICINA SPICULIFERA. *Hel. testâ parvâ, flavâ, trochiformi, laevigatâ, rubrâ, spirâ compresso-conicâ; apertura parvâ, labio externo angustâ, l. 100.*

THE CONTINUOUS HELICINA. Shell small, yellowish, smooth, trochiform, elevated, spire convex-conical; aperture small, outer lip narrow, thin.

GÜNDLACH. Pöy. Mem. Cub., vol. ii, p. 5.

Hab. Cuba.

Species 147. (Fig. a, b, Mus. Brit.)

HELICINA SPICULIFERA. *Hel. testâ globoso-subtrochiformi, laevigatâ, rubrâ, vel rubrâ, in medio anfractu, cuius lincis rubris cinctâ; anfractibus convexis, et in medio, apertura semilunari, columella cinctâ, labio externo lato, reflexo.*

THE PRESENT-LIP HELICINA. Shell globose-subtrochiform, smooth, yellowish or red, banded with a red line in the middle of the whorls; whorls convex, the last large; aperture semilunar, columella very small, outer lip thin, reflected.

GÜNDLACH. Pöy. Mem. Cub., vol. ii, p. 5.

Hab. Cuba.

Species 148. (Mus. Brit.)

HELICINA REMOTA. *Hel. testâ rubescenti, subtrochiformi, spirâlytè obscure lincatâ, medio anfractûs ultimâ obscure bicinctâ; spirâ breviter conicâ, acuminatâ; apertura lata, intus aurâ; labio externo reflexo expanso, ad medium paulo producto, subangulato.*

THE REMOVED HELICINA. Shell reddish, rather trochiform, spirally obscure ribbed, obscurely bicinctated in the middle of the last whorl; spire shortly conical, acuminate; aperture broad, golden within, outer lip reflected; expanded, a little produced and slightly angular in the middle.

PÖY. Mem. Cub., vol. ii, p. 27, t. 8, f. 26.

Hab. Cuba.

This species has not the hollow columella of *Hel. truncata*.

Species 149. (Fig. a, b, Mus. Brit.)

HELICINA ZUCCHERINA. *Hel. testâ globoso-subtrochiformi, laevigatâ, rubrâ, vel flavâ, medio anfractuum et ad suturam albo fasciatâ; apertura semilunari, columellâ ad juncturam incisâ; labio externo albo, l. 100, expanso.*

THE ZUCCHER HELICINA. Shell globose-subtrochiform, smooth, red or yellow banded with white in the middle of the whorls and at the suture; aperture semilunar, columella incised at the juncture; outer lip white, thin, expanded.

DUCLOS. Gœsch. Mag. Nat. Hist.

Hel. cum trepeta? Chenuitz.

Helicium umbellatum, Sowb. (first monograph).

Hab. Texas.

Species 150. (Fig. a, b, Mus. Brit.)

HELICINA RUBINELLA. *Hel. testâ minutâ, pallidè flavâ, compresso-trochiformi, medio anfractûs ultimâ obtusè angulatâ, spirâ depresso-conicâ; apertura parvâ, subquadratâ, labio externo retundâ, medio angulatâ, ad juncturam cum columellâ confluatâ.*

THE LITTLE-TOP HELICINA. Shell minute, pale yellowish, compressed trochiform, obtusely angular in the middle of the last whorl, spire depressed-conical; aperture small, subquadrate, outer lip rounded, angular in the middle, confluent with the columella at the juncture.

PEFFITTE. Proc. Zool. Soc., 1855.

Hab. Sydney.

Species 151. (Fig. a, Mus. Brit.) See fig b, in Pl. XIX.

HELICINA CORBILLERIE. *Hel. testâ depresso-subtrochiformi, rubescenti, vel pallidè fulvâ, medio anfractuum lincis rubris tribus spirâlytè cinctâ; anfractû ultimo lato, depresso; apertura nonnunquam aurâ; labio externo expanso, albo, reflexo.*

October, 1873.

HELICINA.—PLATE XVII.

THE CORDILLERAS HELICINA. Shell depressed-subtrochiform, reddish or pale fulvous, spirally girt with thinner red lines in the middle of the whorls; last whorl wide, depressed; aperture sometimes golden; outer lip expanded, white, reflected.

SALLÉ. Proc. Zool. Soc., 1856.

Hab. Mexico.

It may be known by the depressed form of the last whorl. Having inadvertently filled up the plate, we are obliged to defer the banded variety to Plate XIX.

Species 152. (Mus. Brit.)

HELICINA FUNCKII. *Hel. testâ subdepressâ, lævigatâ, superius rubro-maculatâ, infusâ aurâ, medio anfractûs ultimî angulatâ; spirâ depresso-conicâ; labio externo albo, expanso, reflexo, medio angulato.*

FUNCK'S HELIX. Shell subdepressed, smooth, spotted above with red, golden beneath, angular in the middle of the last whorl; spire depressed-conical;

outer lip white, expanded, reflected, angular in the middle.

PFEIFFER. Proc. Zool. Soc., 1848.

Helicina purpureo-flava, Morelet.

Hab. New Granada.

The colouring on the upper part of the shell presents a contrast to that on the lower part.

Species 153. (Fig. a, b, Mus. Brit.)

HELICINA POLYCHROA. *Hel. testâ parvâ, globosâ, aurâ, in medio anfractuum et supra columellam spirâlyter rubro lineatâ; spirâ convexo-conicâ; aperturâ parvâ, subtrigonâ; columellâ minutâ, trigonâ, labio externo angusto, albo, reflexo.*

THE MANY-COLOURED HELICINA. Shell small, globose, golden, spirally red-lined in the middle of the whorls and above the columella; spire convex-conical; aperture small, subtrigonal; columella minute, trigonal, outer lip narrow, white reflected.

PFEIFFER. MS. Cunn. Col.

Hab. Cuba.



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158



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HELICINA.

PLATE XVIII.

Species 154. (Mus. Brit.)

HELICINA GLOBULOSA. *Hel. testâ globosâ, laevipatâ, fasciâ latâ, lineis duobus rubris marginatâ suprà medianâ et infrà fasciâ angustâ rubrâ infrà medianâ tenuatâ; spirâ brevi, acuminatâ, ultimo anfractu subdepresso, rotundo, aperturâ subrotundâ, labio externo angusto, albo, columellâ parvâ, cum lab. et externam confluatâ.*

THE GLOBULAR HELICINA. Shell globose, smooth, rib-banded above the middle by a broad band edged with two red lines and below the middle by a narrow red band; spire short, acuminate, last whorl a little depressed, rounded, aperture rather rounded, outer lip narrow, white, columella small, confluent with the outer lip.

OBOLBY. *Moll. Cub.*, p. 254.

Hab. Cuba.

One variety is dark greyish and the other red on the upper part of the whorls and on the spire.

Species 155. (Fig. a, b, Mus. Brit.)

HELICINA ROSTRATA. *Hel. testâ globoso-trochiformi, suprà et infrà medianâ rubrâ, vel aurantiâ tenuatâ; spirâ brevi, conicâ, ultimo anfractu angusto, medio angulato, obscure carinato; columellâ subplanulatâ, confluatâ, labio externo lato, reflexo, ad medianâ in lobum linguiformem producto.*

THE BEAKED HELICINA. Shell globose-trochiform, banded with red or orange above and below the middle; spire short, conical, last whorl large, angular, in the middle, obscurely keeled; columella a little flattened, confluent, outer lip broad, produced into a tongue-shaped lobe at the middle.

MORELET. *Test. Nov.*, vol. ii. p. 17.

Helicina Saleini, Tristram.

Hab. Vera Paz.

Species 156. (Mus. Brit.)

HELICINA AFRICALIS. *Hel. testâ subglobosâ, aurantiâ, infrà medianâ rubrâ angustâ; columellâ parvâ, albâ; labio externo planulato, reflexo.*

THE VERNAL HELICINA. Shell subglobose, orange with a single red band below the middle; columella small, white; outer lip flattened, reflected.

MORELET. *Test. Nov. Cub.*, vol. i. p. 20.

Hab. Cuba.

Species 157. (Mus. Brit.)

HELICINA DENTICULATA. *Hel. testâ, globoso-subtrochiformi, pallidâ, suprà et infrà medianâ aurantiâ tenuatâ, aperturâ intus aurâ; ultimo anfractu medio obscure carinato; spirâ acuminatâ, suturâ denticulatâ, labio externo planulato, reflexo, in lobum linguiformem ad medianâ producto.*

THE DENTICULATED HELICINA. Shell globose-subtrochiform, pale, banded with orange above and below the middle; aperture golden within; last whorl obscurely keeled in the middle; spire acuminate, suture denticulated; outer lip flattened, reflected, produced into a tongue-shaped lobe in the middle.

PITHEFER. *Proc. Zool. Soc.*, 1855.

Hab. Honduras.

Resembling *Helicina rostrata*, but having the suture curiously pitted or dentated.

Species 158. (Mus. Brit.)

HELICINA CROSSEI. *Hel. testâ compressâ, subangulatâ, aurantiâ, laevigatâ; spirâ depressâ, apice acuminatâ, callo ventrali tumulinsculo; aperturâ semilunari, intus rubescenti; labio externo planulato, vicâ aurantiâ; ultimo anfractu medio subangulato.*

CROSSE'S HELICINA. Shell compressed, rather angular, orange, smooth; spire depressed, apex acumi-

nated; ventral callus rather swelled; aperture semi-lunar, reddish within; outer lip flattened, bright orange; last whorl a little angular in the middle.

SEMPER.—? Sowb. Thes. Conch., fig. 357.

Hab. Isl. Luzon, Philippines.

Species 159. (Mus. Brit.)

HELICINA EGREGIA. *Hel. testâ subcompressâ, angulatâ, aurantiâ; suprà medium latè, infrâ medium angustè taniatâ, ad angulum medianum albo-fasciatâ; aperturâ productâ, labio externo ad medium angulato, albo; columellâ angustâ, albâ.*

THE UNCOMMON HELICINA. Shell subcompressed, angular, orange; above the middle widely, below the middle narrowly ribanded, on the middle angle white-banded; aperture produced, outer lip angular in the middle, white; columella narrow, white.

PFEIFFER. Proc. Zool. Soc., 1855.

Hab. Isl. Salmon.

Species 160. (Fig. a, b, Mus. Brit.)

HELICINA KIENELI. *Hel. testâ globoso-angulatâ, superne griseo vel rubro variegato, spirâ conicâ, ultimo*

anfractu magno, medio angulato, subcarinato, columellâ subplanulatâ, labi; labio externo reflexo, medio angulato.

KIENEL'S HELICINA. Shell globosely angular, variegated above with grey or red, spire conical, last whorl large; middle angular, slightly keeled, columella rather flattened, broad; outer lip reflected, angular in the middle.

PFEIFFER. Proc. Zool. Soc., 1848. Thes. Conch., 284, 5.

Hab. Cataccas.

Species 161. (Mus. Brit.)

HELICINA TAMSIANA. *Hel. testâ globosâ, albâ, medio anfractu rubro unlinatâ; spirâ elevatâ, acuminatâ; columellâ rectiusculâ; aperturâ productâ, labio externo angusto, planulato, reflexo.*

THE TAMSIAN HELICINA. Shell globose, white, with a red line in the middle of the whorls; spire raised, acuminate; columella rather straight; aperture produced, outer lip narrow, flattened, reflected.

PFEIFFER. Zeitschrift für Malakologie, 1850.

Hab. Venezuela.



10



10a



10b



10c



11a



11b



12a



12b



13a



14a



14b



15a



15b



16

HELICINA.

PLATE XIX.

Fig. 151, b. HELICINA CORDIFRONS. See Pl. XVII.

Species 162. (Fig. a, b, Mus. Brit.)

HELICINA SANDWICHENSIS. *Hel. testâ parvâ, subglobosâ, fulvâ, rubro variegatâ; spirâ convexâ, rotundâ, angustibus carinatis, ultimo angulata rotundâ angulâ convexâ; aperturâ laterâ, ter subaperturâ, collo ventrale subrotundâ; columellâ minutâ.*

THE SANDWICH ISLANDS. HELICINA. Shell small, sub-globose, fulvous, variegated with red; spire a little convex, whorls beaded, last whorl convex below the angle; aperture laterally a little produced, ventral callus a little rounded; columella minute.

SOUTHALL, Voyage de la Bouée. Moll. t. 30, f. 1-5.

Hab. Sandwich Islands.

Species 163. (Mus. Brit.)

HELICINA JAMAICENSIS. *Hel. testâ globosâ, solidâ, pallidâ, roseâ, spirâ aurantâ, rubro variegatâ, convexâ, ultimo angulata rotundâ, rubro unguiculatâ; aperturâ intus aurantâ; labiâ planatâ, r. gl. ex. ad juncturâ tenuissimâ; columellâ parvâ, triangulâ, ad juncturâ tenuissimâ.*

THE JAMAICA HELICINA. Shell globose, solid, pale rose, spire orange, variegated with red, convex, last whorl rounded, with a single band of red; aperture orange within; lip flattened, reflected, very thin at the juncture; columella small, triangular, very thin at the juncture.

SOWERBY. *Thesaurus Conchyliorum*, first monograph, t. 1, f. 3, 4.

Hab. Jamaica.

Differing from *Helicina aurantia* in not having the same thickened lip and ventral callus, and in the extreme tenuity of the columella and outer lip at their junction.

Species 164. (Fig. a, b, Mus. Brit.)

HELICINA SUBGLOBOSA. *Hel. testâ globosâ, pallidâ, intus rubro spicillatâ unguiculatâ, spirâ acuminatâ, convexâ, ultimo angulata subcompressâ; columellâ parvâ, triangulâ; labiâ externo planatâ, r. gl. ex.*

THE SUBGLOBOSE HELICINA. Shell globose, pale, sometimes with a single spiral band, spire acuminate, convex, last whorl a little compressed; columella small, triangular, outer lip flattened, reflected.

POY. *Mém.*, p. 115.

Hab. Florida.

Species 165. (Fig. a, b, Mus. Brit.)

HELICINA ANGIOL. *Hel. testâ parvâ, subtrilobâ, convexâ, subrotundâ, spirâ d. rotâ, angustibus rotundâ, ultimo angulata compressâ.*

ANGIOL'S HELICINA. Shell small, greenish, horny, somewhat trochiform, spire elevated, whorls rounded, last whorl broad, rounded, compressed.

PILLIPE. *Zeitschrift für Malak.*, 1818, p. 88.

Hab. Honduras.

Species 166. (Mus. Brit.)

HELICINA MINUTA. *Hel. testâ minutâ, compressâ, medio angulatâ, obliquè striatâ; aperturâ depressâ, apice acuminatâ; columellâ obliquâ, labiâ externo tenui, angulatâ.*

THE MINUTE HELICINA. Shell minute, compressed, angular in the middle, obliquely striated; aperture depressed, apex acuminate; columella oblique, outer lip thin, angular.

SOWERBY. *Proc. Zool. Soc.*, 1812.

Hab. Isl. Ojara.

Species 167. (Mus. Brit.)

HELICINA VENTITA. *Hel. testâ globosâ, minutâ, pallidâ, convexâ, epidermide tenuissimâ involtâ, obliquè regu-*

liriter rugatâ; columellâ obliquâ, angustâ; labio externo tenui.

THE INVESTED HELICINA. Shell globose, minute, pale, horny, covered with a very thin epidermis, obliquely regularly wrinkled; columella oblique, narrow; outer lip thin.

GUILDING. Sowerby, Thes. Conch., first monograph, f. 42.

Hab. N. America.

Species 168. (Mus. Brit.)

HELICINA UNCARINATA. *Hel. testâ minutâ, globoso-subacuminatâ, lineis punctisque griseis variegatâ; spirâ conicâ, ultimo anfractu medio angulato, carinato, aperturâ parvâ; columellâ tenui, labio externo rix reflexo.*

THE ONE-KEELED HELICINA. Shell minute, globose, subacuminated, variegated with lines and spots of grey; spire conical, last whorl angular in the middle, keeled, aperture small; columella thin, outer lip scarcely reflected.

SOWERBY. Thes. Conch., Helicina, 2nd monog. sp. 107.

Hab. —?

Species 169. (Mus. Brit.)

HELICINA RUBIS. *Hel. testâ parvâ, globoso-trochiformi, subrugatâ, rubrâ, griseo variegatâ; spirâ levati, conicâ; ultimo anfractu medio rix angulato, aperturâ productâ, labio externo rix incrassato.*

THE ROUGH HELICINA. Shell small, globose-trochiform, a little roughened, red varied with grey; spire elevated, conical; last whorl scarcely angular in the middle; aperture produced, outer lip scarcely thickened.

PFEIFFER. Proc. Zool., 1855.

Hab. Sydney.

Species 170. (Mus. Brit.)

HELICINA INCONSPICUA. *Hel. testâ parvâ, subviridi, conicâ, subtrochiformi; spirâ parvâ, acuminatâ, ultimo anfractu lato, compresso.*

THE INCONSPICUOUS HELICINA. Shell small, greenish, horny, rather trochiform; spire small, acuminated, last whorl broad, compressed.

PFEIFFER. —? MS. in Cuming's collection.

Hab. —?

Species 171. (Fig. a, b, Mus. Brit.)

HELICINA CORNEA. *Hel. testâ minutâ, subcompressâ, nigrescenti; spirâ conicâ, depressâ, apice acuminato, ultimo anfractu depresso, medio subangulato; aperturâ subangulatâ; callo ventrali rotundo, rubro marginato.*

THE HORNY HELICINA. Shell minute, rather compressed, blackish; spire conical, depressed, apex acuminated, last whorl depressed, a little angular in the middle; aperture a little angular; ventral callus rounded, pink-edged.

SOWERBY. Thes. Conch., 2nd monograph, sp. 186, 187.

Hab. —?

Species 172. (Mus. Brit.)

HELICINA MULTICOLORE. *Hel. testâ minutâ, subdepressâ, subangulatâ, fulvâ, supra medianâ rosco variegatâ, spirâ depresso-conicâ; aperturâ angulatâ, labio externo tenui; columellâ albâ, subtrigonâ parvâ.*

THE MANY-COLOURED HELICINA. Shell minute, subdepressed, subangular, fulvous variegated with pink, spire depressed-conical; aperture angular, outer lip thin; columella white, subtrigonal, small.

GOULD. Proc. Boston Soc.

Hab. Tahiti.



171^a



173^a



174^a



175^a



176^a



176^b



177^a



178^a



179^a



180^a

HELICINA.

PLATE XX.

Species 173. (Mus. Brit.)

HELICINA COCCINIOSOMA. *Hel. testâ globosâ, politâ, pallidâ, usââ vel fulvâ, spirâ conicâ, apice rubro; ultimo anfractu globoso, infriâ rividâ rubro-aureantâ, columellâ parvâ, trigonâ, ad juncturam tenui, labio externo crasso, rufesco, in medio subangulato, rividâ rubro-aureantâ.*

THE RED-MOUTHED HELICINA. Shell globose, polished, pale rose or fulvous, spire conical, apex red; last whorl globose, bright red-orange below, columella small, trigonal, thin at the juncture, outer lip thick, reflected, a little angular in the middle, bright red-orange.

MOELLER, Test. Noviss., I, p. 19.

Helicina Orsai, var. Pfeiffer.

Hab. Talisco, Peru.

Species 174. (Fig. a, b, Mus. Brit.)

HELICINA AUREANTIA. *Hel. testâ globosâ, politâ, pallidâ, flavâ, in medio anfractuum spirâliter fuscâ anillatâ; spirâ conicâ, apice fusco, callo centrali columellâ et labio externo rividâ rubro-aureantâ, incrassatis, labio externo crasso, rufesco, angulatum productum.*

THE ORANGE HELICINA. Shell globose, polished, pale yellowish with a single brown spiral line in the middle of the whorls; spire conical, apex brown, ventral callus, columella, and outer lip bright red-orange, thickened, outer lip thick reflected, produced angularly.

GRAY, Zool. Journ., vol. i, p. 69.

Helicina pyrrothostoma, Menke.

Hab. Jamaica.

Species 175. (Mus. Brit.)

HELICINA SIMILIS. *Hel. testâ angulatâ, depressâ, fusco-aureantâ, spirâ depresso-conicâ, apice castaneo,*

ultimo anfractu medio angulato, columellâ parvâ, trigonâ, labio externo rufesco, planulato, supra medium angulatum productum, rividâ aureantâ.

THE SIMILAR HELICINA. Shell angular, depressed, orange-brown, spire depressed, conical, apex chestnut, last whorl angular in the middle, columella smooth, trigonal, outer lip reflected, flattened, angularly produced above the centre, bright orange.

SOWERBY, *Thesaurus Conchyliorum*, first monograph of *Helicina*, fig. 130. Proc. Zool. Soc., 1842.

Hab. Haiti.

The lip is broader and more angularly produced than in *Helicina pulata*.

Species 176. (Fig. a, b, Mus. Brit.)

HELICINA ANTILLARUM. *Hel. testâ magnâ, depressâ, tenuissimè striatâ pallidè aureantâ vel castaneâ, unanngulata in medio anfractuum albo interruptim infuscantâ; spirâ depresso-conicâ, anfractibus convexiusculis, ultimo anfractu rotundatim angulato; labio externo subcylindrico, planulato, supra medium subangulato.*

THE ANTILLES HELICINA. Shell large, depressed, very finely striated pale orange or chestnut, sometimes with an interrupted white band in the middle of the whorls; spire depressed, conical, whorls rather convex, last whorl roundly angular; outer lip somewhat expanded, flattened, with a slight angle above the middle.

SOWERBY, *Thesaurus Conchyliorum*, Monog. Helic., Sp. 208, fig. 359, 360.

Hab. Antilles.

Species 177. (Mus. Brit.)

HELICINA AMENA. *Hel. testâ angulatâ, subrhombicâ, spirâ et paulò infriâ angulatum medianum rosâ,*

HELICINA.—PLATE XX.

lineis rubris minutis reticulatâ, hinc infra aurantiâ, columellâ rectâ, labiâ externo aurantiâ, planulato, reflexo, medio angulato.

THE PLEASING HELICINA. Shell angular, somewhat rhomboidal, above and a little below the medial angle pink reticulated with minute red lines, thence below orange; columella straight, outer lip orange, flattened, reflected, angular in the middle.

PEREFILE. Proc. Zool. Soc., 1848.

Helicina purpureo-flava, Morelet.

Hab. Honduras Bay.

Species 178. (Mus. Brit.)

HELICINA SANGUINEA. *Hel. testâ depressâ, subrhomboidâ, aurantiâ; spirâ depresso-conicâ; ultimo anfractu medio obtusè angulato; callo centrali expanso, rotundo, albo, columellâ parvâ, ad juncturam incisâ; labiâ externo planulato, reflexo.*

THE BLEEDING HELICINA. Shell depressed, subrhomboidal, red-orange; spire depressed-conical; last whorl obtusely angular in the middle; ventral callus expanded, rounded, white, columella small, incised at the juncture; outer lip flattened, reflected.

PEREFILE. Proc. Zool. Soc., 1848.

Hab. Honduras.

Species 179. (Mus. Brit.)

HELICINA GUADALOUPENSIS. *Hel. testâ compressâ, angulatâ, flavido-subviridi, vel castaneâ; spirâ depresso-conicâ, anfractibus concavâscentibus; ul-*

timo anfractu lato, compresso, medio obtusè angulato; callo centrali parvo, albo, rotundo; columellâ infra subangulatâ, labiâ externo aurantiâ, angusto, subrotundo.

THE GUADALOUPE HELICINA. Shell compressed, angular, greenish-yellow, or chestnut; spire depressed-conical, whorls rather convex; last whorl broad, compressed, middle obtusely angular; ventral callus small, white, rounded; columella slightly angular below, outer lip orange, narrow, rather rounded.

SOWERBY. Monog. Helicina. Thes. Conch., Sp. 279.

Helicina rufa, var. Pfeiffer.

Hab. Guadeloupe.

Species 180. (Fig. a, b, Mus. Brit.)

HELICINA NERITELLA. *Hel. testâ globosâ, tenui, variegatâ, cubra spirâliter bifasciatâ, vel infra medium unifasciatâ, supra unculis undulatis variegatâ; spirâ subdepressâ; anfractibus parvis, concavâscentibus, ultimo anfractu magno, inflato, subdepresso; columellâ subtriangulâ, planulatâ; labiâ externo albo, complanato, expanso, reflexo.*

THE LITTLE NERITE HELICINA. Shell globose, thin, smooth, with two red spiral bands, or single banded below the middle and variegated with undulating spots above; spire rather depressed; whorls few, rather convex, last whorl large, inflated, a little depressed; columella subtriangular, flattened; outer lip white, flattened, expanded, reflected.

LAMARCK. Hist. Nat. Anim. s. Vert.

Hab. Jamaica.



No. 127



No. 128



No. 129



No. 130



No. 131



No. 132



No. 133



No. 134



No. 135



No. 136

HELICINA.

PLATE XXI.

Species 181. (Mus. Brit.)

HELICINA NIGROLINEATA. *Hel. testâ pallidâ, dorsâ, spirâ, et columellâ, nigrolineata; aperturâ, et labio, rubris; parietibus, parietibus, ultimo angulâ, et aperturâ, albâ, subangulâ, angulata; columellâ, brevî, et ultimo angulâ, et aperturâ, subangulâ, angulata.*

THE NIGROLINEATED HELICINA. Shell pale yellow, narrow, a little depressed, with a shining plain border; spire conical, whorls few, small; last whorl a little broader, scarcely angulate; ventral callus expanded; columella trigonal, ending in a sharp tooth; outer lip elevated above, usually expanded in the middle, sinuously plaited below.

PHILIPPI. Proc. Zool. Soc. 1847.

Hab. Norfolk Island.

Very curiously contracted and plaited at the lower part.

Species 182. (Fig. a, b. Mus. Brit.)

HELICINA CINCHIBA. *Hel. testâ subterreâ, et testâ, angulata, albâ, angustâ, aperturâ, et labio, et spirâ, et columellâ, aurantâ, et aperturâ, et labio, et spirâ, et columellâ, subangulâ, angulata; aperturâ, et labio, et spirâ, et columellâ, subangulâ, angulata.*

THE LITTLE BLUE HELICINA. Shell rather trochiform, thin, angular, white, with the apical whorls banded, or pink above the angle and orange beneath with a narrow white band at the angle and suture; spire conical, elevated; outer lip flattened, reflected.

SHUTTLEWORTH. — ?

Hab. Cordova.

The spire is more elevated than in the greater part of these angular species.

Species 183. (Fig. a, b. Mus. Brit.)

HELICINA OCCIDENTALIS. *Hel. testâ depressâ, angulatâ, latâ, pallidâ aurantâ, spirâ, et columellâ, fuscâ, et aperturâ, et labio, et spirâ, et columellâ, subangulâ, angulata.*

angustâ, nigrolineata, aperturâ, et labio, et spirâ, et columellâ, subangulâ, angulata; aperturâ, et labio, et spirâ, et columellâ, subangulâ, angulata.

THE WESTERN HELICINA. Shell depressed, angular, broad, pale orange, spirally zoned with two narrow blackish bands above and below the angle, or broad reddish bands; spire depressed, conical; last whorl level in the middle; aperture rather rhomboidal, columella short, ventral callus small, outer lip broad flattened, angularly produced in the middle.

GILLESPIE. Trans. Linn. Soc., p. 339

Hab. — ?

Species 184. (Mus. — ? (olim Sowerby.)

HELICINA SUBOVALIS. *Hel. testâ compressâ, flavida, et aperturâ, et labio, et spirâ, et columellâ, fuscâ, et aperturâ, et labio, et spirâ, et columellâ, subangulâ, angulata.*

THE LARGER OVAL HELICINA. Shell compressed yellowish, obtusely angular, spire depressed, obtuse; columella small, trigonal, outer lip narrow rounded.

SOEWERY. Monog. Helicina, Species 198, fig. 376.

Hab. Jamaica.

Species 185. (Mus. Brit.)

HELICINA ZOE. *Hel. testâ parvâ, angulatâ, rubescenti, spirâ, et columellâ, fuscâ, et aperturâ, et labio, et spirâ, et columellâ, subangulâ, angulata; aperturâ, et labio, et spirâ, et columellâ, subangulâ, angulata.*

THE ZOE HELICINA. Shell small, angular, reddish, spire elevated, conical, last whorl rather angular; ventral callus tumid, expanded, orange, rounded; columella short, confluent with the outer lip, aperture rhomboidal, brown within, outer lip white, thin, rounded.

PLEIFFER. MS.

Hab. Cuba.

HELICINA.—PLATE XXI.

Species 186. (Fig. *a, b*, Mus. Brit.)

HELICINA VARIABILIS. *Hel. testâ angulatâ, ventricosâ, spirâlibus striatâ; purpureâ vel rubrâ latè fasciatâ, vel albâ; spirâ elevatâ, conicâ; ultimo anfractu medio cincto, ad circumâ et infra albo fasciato; apertura rhomboidali; labio externo expanso, supra medium angulato.*

THE VARIABLE HELICINA. Shell angular, ventricose, spirally striated; broadly banded with purple or red, or white; spire raised, conical; last whorl keeled in the middle, banded white on the keel and below; aperture rhomboidal; outer lip expanded, angular above the centre.

WAGNER. Spix, Brazil, p. 25.

Helicina zonata, Sowerby.

Helicina fasciata, Spix.

Helicina flava, Spix.

Hab. Brazil.

Species 187. (Fig. *a, b*, Mus. Brit.)

HELICINA NIGROBICCA. *Hel. testâ parvâ, compressâ, angulatâ, pallidè fasciâ, fasciâ rubicâ, angustâ, spirâlibus, superi angulum anfractuum duabus, infra unâ, tenuitâ; ultimo anfractu depresso, cincto; apertura parvâ; columellâ minutâ, albâ; labio externo angusto, albâ, medio rotundatim angulato.*

THE NIGROBIC HELICINA. Shell small, compressed, angular, pale brown, ribanded with narrow red spiral bands, two above one beneath the angle of the whorls; last whorl depressed, keeled; aperture small; columella minute, white; outer lip narrow, white, roundly angular in the middle.

PHILIPPI. Zeitschrift für Malakologie.

Helicina Merguensis, Pfeiffer.

Helicina Andamanica, Benson.

Hab. Andaman Islands. Siam.



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HELICINA.

PLATE XXII.

(Species 188. (Mus. Brit.))

HELICINA BUDICATA. *Hel. testâ subglobosa angustata, luteo-fulva, flavella, costâ sinuata angustata, sinuâ, limbo callosi cartilagineo, spirâ angustata, apice mucronato; callo centrali parvo, columellâ parvâ, albiâ; labio cetero albo, reflexo, angulato, minuto; tubo cæcæ rectæ, albiâ, medio.*

THE BUDICATED HELICINA. Shell globose, angular, smooth, yellowish-brown above, the middle whorl within, reticulated with minute lines; spire elevated, apex mucronate; last whorl angular in the middle, anteriorly convex; ventral callus very thin; columella minute; outer lip angular, white, thin.

PELLICER. Proc. Zool. Soc., 1862.

Hab. Cape Flattering.

(Species 189. (Mus. Brit.))

HELICINA POLITA. *Hel. testâ depresso-angulata, lutescens, aurantia vel pallide flavida, mucronata, aurantia vel fusca fasciata; spirâ depressâ, conicâ, anticretellâ apicalibus parvis; altimo angustato angulato; callo centrali rotundo, columellâ parvâ, albiâ; labio cetero albo, reflexo, angulato, minuto.*

THE POLISHED HELICINA. Shell depressed, angular, very smooth, orange or pale yellowish, sometimes banded with orange or brown; spire depressed-conical, apical whorls small; last whorl angular in the middle; ventral callus round, columella small, white; outer lip reflected, flattened, angular in the middle.

SOWERBY. Proc. Zool. Soc., 1812.

Helicina citrina (var.), Pfeiffer.

Hab. Philippines.

This beautiful species is subject to great variations in shape and colour.

(Species 190. (Mus. Brit.))

HELICINA SARDANA. *Hel. testâ depresso-subglobosa, rufo-roseo fusca, limbo albo angulato; spirâ conicâ, luteâ; altimo angustato angulato, rotundâ in subangulato; callo centrali albiâ, columellâ parvâ, albiâ; labio cetero subalbâ, reflexo, albiâ, medio obtusissimâ angulato.*

SMITH'S HELICINA. Shell globose, angular, smoky-brown, smooth, rather angular; spire conical, short; last whorl rather large, roundly subangular; ventral callus white; columella small, pointed; outer lip rather thin, rounded, very obtusely angular in the middle.

PELLICER. Proc. Zool. Soc., 1852.

Hab. Haiti.

(Species 191. (Mus. Brit.))

HELICINA STRIATA. *Hel. testâ globoso-subdepressâ, fusca-roseo fusca, longitudinaliter leviter striatâ; spirâ conicâ; altimo angustato inflato; callo centrali subdepresso; columellâ parvâ; labio cetero albo, reflexo.*

THE STRIATED HELICINA. Shell globose-subdepressed, smoky-brown, longitudinally lightly striated; spire convex; last whorl inflated; ventral callus rather flat; columella small; outer lip white, reflected.

LAMARCK. Hist. Nat. Anim. s. vert.

Hab. Porto Rico.

(Species 192. (Fig. a, b, Mus. Brit.))

HELICINA IDEÆ. *Hel. testâ parvâ, depresso-conicâ, rubescenti, levî; spirâ depressâ; altimo angustato angulato, medio luteo fasciato; aperturâ parvâ, depressâ, intus fuscâ; callo centrali tenuissimâ, columellâ minutâ; labio cetero albo, reflexo, campanato.*

October, 1873.

DA'S HELICINA. Shell small, depressed-conical, reddish, smooth; spire depressed; last whorl angular, with a yellow band in the middle; aperture small, depressed, brown within; ventral callus very thin, columella minute, outer lip white, reflected, flattened.

PREFFER. Proc. Zool. Soc., 1856, p. 339.

Hab. —?

Species 193. (Fig. a, b, Mus. Brit.)

HELICINA MACGILLIVRAYI. *Hel. testâ parvâ, compresso-conicâ, rubro latè bifasciatâ; spirâ depressâ, lateribus convexis; ultimo anfractu rotundatim subangulato; aperturâ parvâ, labio externo tenui, reflexo.*

MACGILLIVRAY'S HELICINA. Shell small, compressed-conical, with two broad red bands; spire depressed, with convex sides; last whorl roundly subangular; aperture small, outer lip thin, reflected.

PREFFER. Proc. Zool. Soc., 1855.

Hab. Isl. of Pines, South Seas.

A pretty little half compressed, half globose red-banded species.

Species 194. (Fig. a, b, Mus. Brit.)

HELICINA VILENS. *Hel. testâ globoso-angulatâ, pallidè viridi vel luteâ, jussu fasciatâ; spirâ elevatâ, conicâ, anfractibus convexiusculis, carinatis; ultimo anfractu angulo, medio carinato; callo centrali tumido; columellâ cum labio externo confluatâ; labio externo planulato, reflexo, medio latiusculo, angulato.*

THE GREENISH HELICINA. Shell globose angular, pale green, or yellow with brown bands; spire elevated, conical, keeled in the middle; last whorl large, keeled in the middle; ventral callus tumid; columella confluent with the outer lip; outer lip flattened, reflected, rather broader in the middle, angular.

PREFFER. Proc. Zool. Soc., 1856.

Hab. —?

One of the most strongly keeled shells of the group.



HELICINA.

PLATE XXIII.

Species 195. (Fig. a, b. Mus. Brit.)

HELICINA RIDGII. *Hel. testâ globosa, carinata, albida, opacitate castanea pupi carinam unifasciatâ; spirâ elevata, angustibus supra carinam convexis; ultimo ang. cute in columella carinata, infra carinam emissa; callo centrali crassâ, columella subnulla parva et brevâ; labio externo operculi depresso, inflexo ad juncturam emarginato, medio expanso, angulato.*

RIDGE'S HELICINA. Shell globose, carinated, whitish, sometimes with a single chestnut band near the keel; spire elevated, whorls convex above the keel, last whorl strongly keeled, convex below the keel; ventral callus large, rounded; a lamella small, rather straight, outer lip depressed above, emarginated, expanded in the middle, angular.

PREPUBL. PROC. Zool. Soc., 1848.

Helicina Murchisonia, Hombriugh.

Hab. — ?

Species 196. (Fig. a, b. Mus. Brit.)

HELICINA LIBERTI. *Hel. testâ parvâ, depressâ, carinatâ, fulvâ, ananquam rubro maculata, callos auratis, spirâ convexâ, apice mucronato; angustibus supra carinam subnullis, infra carinam convexis; ultimo angustâ parvâ infra medium carinata; apertura parvâ.*

THE LITTLE HELICINA. Shell small, depressed, keeled, fulvous, sometimes spotted with red, golden within; spire convex, apex mucronate, whorls rather rounded above the keel, convex below the keel; last whorl keeled a little below the middle; aperture small.

GOULD. Proc. Bost. Soc., 1847.

Hab. Sandwich Islands.

Species 197. (Mus. Brit.)

HELICINA ALBO-LABRIS. *Hel. testâ depressâ, angulatâ, pallidâ rubrâ; spirâ brevâ, conicâ; ultimo angustâ parvâ supra medium a-nâe carinata, infra carinam convexâ, callo centrali et columella albidis, crassis; labio externo supra medium angulato, basi reflexo.*

THE WHITE-LIPPED HELICINA. Shell depressed, angular, pale red; spire short, conical; last whorl sharply keeled a little above the middle, convex below the keel, ventral callus and columella whitish, thick; outer lip angular above the middle, not reflected.

HOMBRUGH. Voy. Pol. Sud. Moll.

Hab. Tahiti.

Species 198. (Mus. Brit.)

HELICINA CORRIGATA. *Hel. testâ parvâ, callos depressâ, angulatâ, fumoso-fuscâ, supra medium expanso-undulatâ, spirâ depressâ; ultimo angustâ acutâ carinatâ, conicâ undulatâ; callo centrali crassâ subnullâ; columella cum labio externo confluenti.*

THE CORRIGATED HELICINA. Shell small, much depressed, angular, smoky-brown, roughly undulated above the middle, spire depressed; last whorl sharply keeled, keel undulated; ventral callus rather thick; columella confluent with the outer lip.

PRESE. — ?

Hab. Tahiti.

A curious little species characterized by undulations on the upper part of the whorls and the keel.

Species 199. (Mus. Brit.)

HELICINA MAUGEEI. *Hel. testâ depressâ, crassâ, angulatâ, pallidâ, callosâ; spirâ depresso-conicâ; angustibus supra et infra carinam castaneo unifasciatâ; ultimo angustâ medio acutâ carinata, infra carinam convexâ; callo centrali lato auratis, incrassato, columella subtrigona; labio externo crasso, auratis, medio producto, infra ad juncturam subemarginato.*

MAUGEE'S HELICINA. Shell depressed, thick, angular, pale reddish; spire depressed-conical; whorls single-banded with chestnut above and below the keel, last whorl sharply keeled in the middle, convex below the keel; ventral callus broad, orange, thickened, columella subtrigonal; outer lip thick, orange, produced in the middle, slightly emarginated below at the juncture.

GRAY. Zoological Journal, vol. i, p. 251.

Hab. Marquesas.

The thickened orange callus and outer lip of this species distinguish it well from others.

Species 200. (Mus. Brit.)

HELICINA ANGULATA. *Hel. testâ subdepressâ, angulatâ, pallidâ stramineâ, maculis parvis supra et infra carinam variegatâ; spirâ conicâ; ultimo angustâ medio carinata, infra medium convexâ producto; labio externo supra medium acutato.*

THE ANGULAR HELICINA. Shell subdepressed, angular, pale straw, variegated with small spots above and below the keel; spire conical; last whorl carinated

in the middle, convex below the middle; columella white, produced below into a curved spire; outer lip arched above the middle.

SOWERBY. *Thesaurus Conchyliorum*, 2nd Men., Sp. 245.
Hab. Brazil.

Species 201. (Mus. Brit.)

HELICINA GOSOCHEILA. *Hel. testâ depressâ, angulatâ, fumoso-fuscâ, spirâ et infriâ lineis, medio punctis rubris notatâ; spirâ depresso-conicâ; ultimo anfractu medio angulato, albofasciato; columellâ albâ, in spiram recurvam productâ; labio externo complanato, reflexo.*

THE ANGLE-LIP'D HELICINA. Shell depressed, angular, smoky-brown, marked above and below with red lines and in the middle with spots; spire depressed-conical; last whorl angular in the middle, white-banded; columella white produced into a recurved spire; outer lip flattened, reflected.

PELLEU. *Proc. Zool. Soc.*, 1818.
Hab. Venezuela.

Species 202. (Mus. Brit.)

HELICINA SOWERBYANA. *Hel. testâ magis, albâ, globoso-angulatâ, superiâ spirâliter striatâ; spirâ conicâ, apice acuminatâ; ultimo anfractu ventricoso, infriâ angulum curvato, medio carinatâ; callo ventrali crasso, columellâ parvâ, ad juncturam angulatâ; labio externo reflexo, expanso, medio obtusè angulato.*

SOWERBY'S HELICINA. Shell large, white, globosely angular, spirally striated above; spire conical, apex acuminate; last whorl ventricose, convex below the angle keeled in the middle; ventral callus thick, columella small, angular at the junction; outer lip reflected, expanded, obtusely angular in the middle.

PELLEU. *Proc. Zool. Soc.*, 1818.
Hab. Guatemala.

Species 203. (Mus. Brit.)

HELICINA VILLOSA. *Hel. testâ parvâ, compressâ, fumoso-fuscâ, medio anfractu carinatâ, ad circumâ setis crispatis ornatâ; ultimo anfractu depresso; aperturâ subtrigona, labio externo crasso, planulato.*

THE BABY HELICINA. Shell small, compressed, smoky-brown, keeled in the middle of the whorls, ornamented with curled hairs at the keel; last whorl

depressed; aperture subtrigonal; outer lip thick, flattened.

ANTHONY. —?
Helicina pilosa, Sowerby.
Hab. Isl. Ojara.

Species 204. (Mus. Brit.)

HELICINA ALBO-CINCTA. *Hel. testâ parvâ, depressâ, lenticulari, fumoso-fuscâ; ultimo anfractu obtusè carinatâ; carinâ albâ; aperturâ parvâ, columellâ tenui, albâ, obliquâ; labio externo albo, angusto, rotundo.*

THE WHITE-BELTED HELICINA. Shell small, depressed, lenticular smoky-brown; last whorl obtusely keeled; keel white; aperture small; columella thin, white, oblique; outer lip white, narrow rounded.

HOMBERG. *Voy. Pol. Sud. Moll.*
Hab. ARU Island.

Species 205. (Mus. Brit.)

HELICINA HUMILIS. *Hel. testâ minutâ, fuscâ, lenticulari; spirâ depressâ; ultimo anfractu medio angulato; callo ventrali albo, crasso, columellâ arcuatâ; labio externo laevi reflexo.*

THE HUMBLE HELICINA. Shell minute, brown, lenticular; spire depressed; last whorl angular in the middle; ventral callus white thick, columella arched, outer lip not reflected.

HOMBERG. *Voy. Pol. Sud. Moll.*, t. ii. f. 30-37.
Hab. Hogolu.

Species 206. (Mus. Taylor.)

HELICINA TAYLORIANA. *Hel. testâ tenui, angulatâ, aurantâ, medio anfractu medio carinatâ; carinâ utrinque lineâ rubrâ marginatâ; spirâ conicâ; columellâ albâ, tenui, infriâ in spiram productâ; labio externo reflexo, albo, planulato.*

TAYLOR'S HELICINA. Shell thin, angular, orange, sharply keeled in the middle of the whorls; keel bordered with a red line on each side; spire conical; columella white, thin, produced into a spire below; outer lip reflected, white, flattened.

SOWERBY.
Hab. —?

This is one of the prettiest and most characteristic of all the species.



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HELICINA.

PLATE XXIV.

Species 207. (Mus. — Copied.)

HELICINA OXYLIPUS. *Hel. testâ trochiformi, acutè curvatis, pallidiâ; spirâ conicâ, elevatâ, angustibus ad suturam curvatis; aperturâ acutè angulatis; labiâ externo albo, angustâ, planulata, columellâ rotundâ, cum labiâ externo confluenti, collo centrali planulato.*

THE SHARP-FORMED HELICINA. Shell trochiform, sharply keeled, pale, spire conical, elevated, whorls keeled at the suture; aperture sharply angular; outer lip white, narrow, flattened; columella rounded, confluent with the outer lip, ventral callus flattened.

GRAY, Bevelly's Appendix.
Helicina oxylopa, Sowerby, Thes., first monograph.
Hel. Bahia.

Species 208. (Fig. a, b, Mus. Brit.)

HELICINA LAZARUS. *Hel. testâ depresso conicâ, fuscâ, subtis subplanulatis; spirâ conico-conicâ, angustibus unguisatis, ultimo angustâ in altum angulatis, depresso; labiâ externo superius depresso, medio subproducto, columellâ brevi.*

THE BUBBAR HELICINA. Shell depressed-conical, brown, rather flattened beneath; spire conico-conical; whorls narrow; last whorl obtusely angular, depressed; outer lip depressed above, produced in the middle; columella short.

SOWERBY, Proc. Zool. Soc., 1812.
Hel. Philippines.

Species 209. (Fig. a, b, Mus. Sowerby, &c.)

HELICINA CARBOCOLLA. *Hel. testâ depresso, acutissimo angulatis, auriculatis vel purpuratis, spirâ depresso, ultimo angustâ magno, medio acutè curvatis, aperturâ angulatis; collo columellari albâ, rotundâ; columellâ cum labiâ externo confluenti; labiâ externo lato, planulato, superius depresso, medio in angulum acutum acclivè producto.*

THE CARBOCOLLA HELICINA. Shell depressed, very sharply angular, golden or purple; spire depressed; last whorl large, middle sharply keeled; aperture angular; columellar callus white, rounded; columella confluent with the outer lip; outer lip broad, flattened, depressed above, produced in the middle into a sharp upturned angle.

MORCAND, Mem. Gen. VIII. p. 111.
Hel. Brazil.

The peculiarly broad, flattened outer lip with its upturned angle, distinguishes this from the other species of the depressed form.

Species 210. (Mus. Taylor.)

HELICINA JOSEPHINE. *Hel. testâ trochiformi, tenui, latæviti, superius maculis subviridibus, flammatis evirgatâ, spirâ conicâ, acuminatâ, angustibus scabriscentis, ad suturam curvatis; ultimo angustâ infra medianam subplanulatis, ad medianam curvâ acutâ, serratâ costâ; aperturâ triplici, labiâ externo subflexo, planulato, superius declivi.*

JOSEPHINE'S HELICINA. Shell trochiform, thin, yellowish, variegated above with greenish flame-shaped spots; spire conical, acuminate, whorls rather scabrous keeled at the suture; last whorl a little flattened below the middle, girt in the middle with an acutely serrated keel; aperture trigonal; outer lip slightly reflected, flattened, sloped above.

C. B. ADAMS, Contributions to Conchology, p. 27.
Hel. Jamaica.

Species 211. (Mus. Brit.)

HELICINA CONSTELLATA. *Hel. testâ trochiformi, scabri, striatâ, superius rubra maculatis; spirâ conicâ, elevatâ, angustibus curvâ serratâ, acutissimo, marginatis, penultima curvâ serratâ; aperturâ parvâ, angulatis; labiâ externo albo, reflexo, ad medianam acutissimo angulato.*

THE CONSTELLATED HELICINA. Shell trochiform, scabrous, straw-coloured, red-spotted above; spire conical, elevated, whorls bordered with a

HELICINA.—PLATE XXIV.

serrated very sharp keel, the last but one with the keel exserted; aperture small, angular; outer lip white, reflected, very acutely angular in the middle.

MOULLET. Révue Zoologique, 1847.

Helicina pupala, V. Linscopf.

Hel. — ?

This species has the upper whorls more exserted than those of *Helicina stellata*, so that the serrated keel is raised above the suture.

Species 212. (Mus. Brit.)

HELICINA FUSCULA. *Hel. testâ parvâ, pyramidatâ, leri, fuscâ, costano superâ bifasciatâ; spirâ elevatâ, angustibus convexitatis, apice sub carinato; ultimo anfractu infâ medium obtusissimè carinato basi subplanulato; apertura parvâ, triangulâ, labio externo albo, angusto, infâ medium angulato.*

THE LITTLE BROWN HELICINA. Shell small, pyramidal, smooth, brown, with two chestnut bands above; spire elevated, whorls a little convex, apex bluish; last whorl very obtusely keeled below the centre, rather flattened at the base; aperture small, trigonal, outer lip white, narrow, angular below the centre.

GONDLACH — ? Thesaurus Conchyliorum. Helicina, sp. 96, f. 165, 6.

Hel. Cuba.

Species 213. (Mus. Brit.)

HELICINA TRYPHLEA. *Hel. testâ parvâ acuminatâ, pyramidatâ, laevigatâ, fuscâ; spirâ parvâ elevatâ, angustibus superâ intusè fasciatâ, ultimo anfractu infâ medium obtusissimè angulato; apertura parvâ.*

THE GOLDEN HELICINA. Shell small, acuminated, pyramidal, smooth, brown; spire much elevated, whorls strongly browned above; last whorl very obtusely angular below the middle; aperture small.

WRIGHT — ? Sowerby's Thesaurus. Helicina, sp. 95, figs. 161, 162, 163.

Helicina rubella, Wright (var.).

Hel. Cuba.

Species 214. (Mus. Brit.)

HELICINA ALBOVIRIDIS. *Hel. testâ parvâ, pyramidatâ, albâ, viridi anfractuâ; spirâ elevatâ, acuminatâ, apice viridi; ultimo anfractu rotundato; labio externo albido, leviter reflexo, angulato.*

THE WHITE-GREEN HELICINA. Shell small, pyramidal, white, single-banded with green; spire elevated, acuminated, apex green; last whorl rounded; outer lip white, slightly reflected, angular.

WRIGHT — ? Sowerby's Thesaurus. Helicina, sp. 96.

Hel. Cuba.

Species 215. (Mus. Brit.)

HELICINA PARVA. *Hel. testâ minutâ, depresso-subglobosâ tenui, auriculatâ; spirâ parvâ; ultimo anfractu centricoso; columella parvâ, albâ; labio externo reflexo, planulato.*

THE SMALL HELICINA. Shell very small, depressed-subglobose, thin, golden; spire small; last whorl ventricose; columella small, white; outer lip reflected, flattened.

SOWERBY, Proc. Zool. Soc., 1842.

Hel. Philippines.

Species 216. (Mus. Brit.)

HELICINA STELLATA. *Hel. testâ depresso-trochiformi, superâ granosâ stramineâ; spirâ turratâ, angustibus serrato-carinatis, superâ rubromaculatis; ultimo anfractu infâ carinata planulato, rubro anfractu; apertura angulatâ, depressâ, parvâ; labio externo superâ depresso medio angulatim producto.*

THE STELLATED HELICINA. Shell depressed-trochiform, granose above, straw-coloured; spire turreted; whorls with a serrated keel, spotted with red above; last whorl flattened beneath the keel, having a single red band; aperture angular; depressed, small; outer lip depressed above, produced into an angle at the centre.

VELASQUEZ — ? Jay's Catalogue. Thes. Conch., sp. 268, f. 151.

Hel. — ?



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HELICINA.

PLATE XXV.

Species 217. (Mus. Brit.)

HELICINA HUMANSOMA. *Hel.* testâ subglobosâ, lœvi, alba, ad labiâ a cœterâ, collam ventralim apicemque circumâ rotatâ; spirâ brevi, angustibus parvis, ultimo angustâ subventricosa, medio obscure angulata; labio externo superiôrè subdepresso, medio subcylindrico, levato; columellâ costisculâ, ad juncturam erectâ.

THE LAD MOLLUSK HELICINA. Shell subglobose, smooth, white, bright red at the outer lip, ventral radius and apex; spire short, whorls small, last whorl rather ventricose, obscurely angular in the middle; outer lip rather depressed, a little angular in the middle, elevated; columella rather straight, emarginated at the juncture.

MORICANDI, Mém. H. p. 36.

Hab. Bahiâ.

Species 218. (Mus. Brit.)

HELICINA JUCUNDA. *Hel.* testâ pyramidalâ, luteâ vel pallidâ fulcâ, columellâ et labio externo rubris, foveâ areolata.

THE JOYOUS HELICINA. Shell pyramidal, yellow or pale fulvous, columella and outer lip red, throat pitted.

GUNDELACH, Pfl. Bl. Malak., 1863, p. 197.

Hab. Cuba.

Species 219. (Mus. Brit.)

HELICINA CRIBRA. *Hel.* testâ depresso-subglobosâ, tenui, lœvi, luteâ; ultimo angustâ ventricosa, columellâ brevi, subtrigona; labio externo albo, refl. co. planulato.

THE CRIBRA HELICINA. Shell depressed, subglobose, thin, smooth, yellow; last whorl ventricose, columella short, subtrigonal; outer lip white, reflected, flattened.

GRAVELLOP, Not H. polita, Sowerby. Not H. crinita, Sowerby.

Hab. Cuba.

Species 220. (Fig. a, b, Mus. Brit.)

HELICINA AGGLUTINANS. *Hel.* testâ depressâ, angulatâ, aurantâ, frequenter ad angulum antroctanum luteam in multis regularibus agglutinanti; aperturâ angulatâ; labio externo refl. co. albo, planulato; ultimo angustâ depresso, curvato; columellâ obliquâ.

THE AGGLUTINATING HELICINA. Shell depressed, angulated, orange, frequently glueing to its little nodes of mud at the angle of the whorls; aperture angular; outer lip reflected, white, flattened; last whorl depressed, keeled; columella oblique.

SOWERBY, Proc. Zool. Soc., 1842.

Hab. Philippines.

The singular habit of glueing particles of dust and mud in regular form at the keel is not apparently exercised by all the specimens of this species, although the power is possessed.

Species 221. (Mus. Brit.)

HELICINA GLOEULOSA. *Hel.* testâ globosâ tenui, lævigatâ, aurantâ; spirâ brevi, angustibus parvis; ultimo angustâ ad suturam medianaque albo fasciato, supra et infra medium rubro fasciato; aperturâ semilunatâ; labio externo albo, planulato, refl. co.

THE GLOEULOSE HELICINA. Shell globose, thin, smooth, golden; spire short, whorls small; last whorl, suture and middle banded with white above, and below the middle banded with red; aperture semilunar; outer lip white, flattened, reflected.

OREIGNY, Moll. Cuba, p. 245.

Hab. Cuba.

A small species, very prettily ribanded with red and white.

Species 222. (Mus. Brit.)

HELICINA LUTEA. *Hel.* testâ crassâ, luteâ, globoso-angulatâ; spirâ conicâ, lateraliter convexisculâ;

ultimo anfractu medio subangulato, columellæ angustæ, ad juncturam angulatæ.

THE YELLOWISH HELICINA. Shell thick, yellow, globose-angular; spire conical, laterally rather convex; last whorl rather angular in the middle, columella narrow, angular at the juncture.

LESSON. Voy. Voy., p. 350.

Hab. Port Dorez, New Guinea.

Species 223. (Mus. Brit.)

HELICINA HJALMASONI. *Hel. testæ globoso-depressæ, fuscæ, tenui; spiræ depressæ; columellæ albæ triangulæ, labio externo albæ, tenui, superne subdepresso.*

HJALMASON'S HELICINA. Shell globose-depressed, brown, thin; spire depressed; columella white, trigonal; outer lip white, thin, a little bent down above.

PREIFFER. Malak. Pl. III, 1855.

Hab. Porto Rico.

Species 224. (Mus. Brit.)

HELICINA BULLA. *Hel. testæ albæ, crassiusculæ, globoso-subangulatæ; spiræ conicæ, labio externo reflexo, medio subangulato; columellæ obliquæ, albæ.*

THE BUBBLE HELICINA. Shell white, rather thick, globose-subangular; spire conical, outer lip reflected,

a little angular in the middle; columella oblique, white.

PREIFFER. Proc. Zool. Soc., 1852.

Hab. ———

Species 225. (Mus. Brit.)

HELICINA GRANUM. *Hel. testæ minutæ, albæ, globoso-subdepressæ, spirally striatæ; spiræ convexæ, anfractibus subrotundis; ultimo anfractu post columellam excavato; apertura parvæ, subquadratæ.*

THE GRAIN HELICINA. Shell minute, white, globose-subdepressed, spirally striated; spire convex, whorls rather round-d; last whorl excavated behind the columella; aperture small, rather square.

PREIFFER. Bl. Malak., 1856.

Hab. Cuba.

Species 226. (Mus. Brit.)

HELICINA CASTANEA. *Hel. testæ parvæ, subdepressæ, obtuse angulatæ, castaneæ, spiræ depresso-conicæ; ultimo anfractu medio rotundatim angulato; apertura infri acutè angulatæ.*

THE CHESTNUT HELICINA. Shell small, rather depressed, obtusely angular, chestnut; spire depressed-conical; last whorl roundly angular in the middle; aperture with a sharp angle below.

GUILDING. —? Sowerby's Thesaurus. Helicina, sp. 218, figs. 470, 471.

Hab. St. Thomas, Porto Rico.



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HELICINA.

PLATE XXVI.

Species 227. (Mus. Brit.)

HELICINA MACULATA. *Hel. testâ parvâ, politâ, medio angulatâ; fulvâ, fasciâ albâ; antrâ supra, albidâ infra angulâ, maculâ supra angulâ, rubrâ ad angulâ et antrâ; spirâ conicâ, ultimo anfractu supra, infra subangulatâ convexâ, labio externo supra, medio depressâ, rubro-livido-purpureo.*

THE SPOTTED HELICINA. Shell small, polished, angular in the middle, fulvous, ornamented with one red band above and another below the middle and angular red spots at the angle; spire conical; last whorl below the middle rather angularly convex; outer lip depressed above; columella small.

SOWERBY. *Thesaurus Conchyliorum.* Helic. p. 271, f. 472.

Hab. South America.

Species 228. (Mus. Brit.)

HELICINA BRASILIANA. *Hel. testâ albâ, depressâ, spirâli ter striatâ; spirâ depresso-conica, anfractibus parvis, apice acuminato, ultimo anfractu medio subangulatâ, infra convexâ, subangulicatâ; columella erectâ, supra, convexâ, ad juncturam obtusâ angulatâ; labio externo supra et infra compresso, angusto, rubro.*

THE BRASILIAN HELICINA. Shell white, depressed, spirally striated; spire depressed-conical, whorls small, apex acuminated; last whorl a little angular in the middle, convex below, somewhat umbilicated; columella rather straight, rounded above, obtusely angular at the juncture; outer lip compressed above and below, narrow, reflected.

GRAY. *Zoological Journal*, vol. i. p. 61.

Hab. Brazil.

Species 229. (Mus. Brit.)

HELICINA ZEBRIGATA. *Hel. testâ parvâ, depressâ, angulatâ, fulvâ, strigiâ rubrâ longitudinalibus variegatâ; ultimo anfractu acuti carinato.*

THE ZEBRA-STRIPED HELICINA. Shell small, depressed, angular, fulvous, varied with longitudinal red stripes; last whorl sharply keeled.

PILITZEL. *Proc. Zool. Soc.*, 1855.

Helicina fulgura, Gould.

Hab. Isl. Samar.

Species 230. (Mus. Brit.)

HELICINA MOUBOTI. *Hel. testâ angulatâ, depressâ, auriculâ, medio anfractuum curvâ linguatâ, latâ, dextere cinctâ; spirâ conicâ, depressâ; ultimo anfractu infra angulâ subangulatâ; columellâ albâ, obliquâ cum labio externo confluenti; labio externo compresso, in processum linguiformem producto.*

MOUBOT'S HELICINA. Shell angular, depressed, golden, gilt in the middle of the whorls with a fluted broad keel sloped downwards; spire conical, depressed; last whorl rather flattened below the angle; columella white, oblique, confluent with the outer lip; outer lip compressed, produced into a tongue-shaped projection.

PILITZEL. *Proc. Zool. Soc.*, 1862.

Hab. Lao Mountains, Cambodia.

The beautifully fluted keel in this species distinguishes it from all others, excepting *H. corangata*, which obscurely shows the same tendencies.

Species 231. (Mus. Brit.)

HELICINA MOQUINIANA. *Hel. testâ angulatâ, tenuissimâ, supra spirâli ter striâ elevatâ, substantibus sculptâ, cuneo-fusâ, maculis rubrescentibus supra angulâ in scribas duobus variegatâ; spirâ conicâ, ultimo anfractu acuti carinato, apertura obliquâ subquadratâ, labio externo albo, reflexo, medio angulatâ; vallo centrali rotundo.*

MOQUIN'S HELICINA. Shell angular, rather thin, spirally sculptured on the upper part with raised rather

HELICINA.—PLATE XXVI.

distant striae, vinous-brown, varied above the angle with two rows of red spots; spire conical; last whorl sharply keeled, aperture obliquely rather square, outer lip white, reflected, angular in the middle; ventral callus rounded.

RECLUZ. Journal de Conchyliologie, 1851.

Hab. New Caledonia.

Species 232. (Mus. Brit.)

HELICINA OXYRHINCA. *Hel. testâ subcompressâ, angulâtâ, aurcollâ, tenui; spirâ depresso-conicâ, anfractibus ad suturam carinatis; ultimo anfractu medio acutissimè carinato, infra medium convexo; aperturâ rhomboidèi; labio externo superuè convexo, tunc depresso, ad angulum medianum in processum sublinguiformem extenso.*

THE SHARP-SKOTED HELICINA. Shell subcompressed, angular, golden-tint-d. thin; spire depressed-conical, whorls keeled at the suture; last whorl very sharply keeled in the middle, convex below the middle; aperture rhomboidal; outer lip convex, then depressed, extended into a tongue-shaped process at the middle angle.

CROSSI. Journa. Conch., vol. xi. p. 267.

Hab. ——— ?

Species 233. (Mus. Brit.)

HELICINA FLAMMA. *Hel. testâ minutâ, depresso-subglobosâ, fuscâ, lineis rubris undulatis et angulatis variopâtâ, obtusissimè angulatâ, supra angulum depresso-conicâ, infra angulum convexâ; aperturâ semilunari; labio externo albo, plantulato, angustâ; columellâ trigonâ, parvâ.*

THE FLAME HELICINA. Shell minute, depressed-subglobose, brown, varied with undulating and angular red lines, very obtusely angular, depressed, conical above the angle, convex below; aperture semilunar, outer lip white, flattened, narrow; columella trigonal, small.

QUAY. Voy. Astor., vol. ii. p. 193, t. 12, f. 1-2.

Hab. Island of Tonga

Species 234. (Mus. Brit.)

HELICINA SHANGHAENSIS. *Hel. testâ parvâ, depressâ, angulatâ, lutescenti ad angulum et supra rubro maculatâ; spirâ depressissimo-conicâ; collo ventrali tenui; aperturâ parvâ, angulatâ; labio externo haud reflexo.*

THE SHANGHAI HELICINA. Shell small, depressed, angular, yellowish, spotted with red at the angle and above; spire depressed-conical; ventral callus thin; aperture small, angular; outer lip not reflected.

PELLETER. Proc. Zool. Soc., 1855.

Hab. Royalty Island.

A pretty little species shaped something like a *Rotella*.

Species 235. (Mus. Brit.)

HELICINA REEVIANA. *Hel. testâ globosâ, spirâliter striatâ, purpurascenti, fuscâ rubrâ interruptâ ad medianam anfractuum cinctâ; spirâ sublevatâ, columellâ parvâ, rectâ, labio externo semilunari, albo.*

REEVE'S HELICINA. Shell globose, spirally striated, purplish, girt with an interrupted red band in the middle of the whorls; spire slightly raised, with round whorls; columella small, straight, outer lip semilunar, white.

PELLETER. Proc. Zool. Soc., 1848.

Hab. Cuba.

Species 236. (Mus. Brit.)

HELICINA ARTICULATA. *Hel. testâ depresso-angulatâ levigatâ, ad medianam anfractuum et ad suturam articulatam maculatâ; ultimo anfractu medio acutè carinato; collo ventrali magno rotundo; aperturâ subrhomboidèi, labio externo angulato.*

THE ARTICULATED HELICINA. Shell depressed-angular, smooth, articulatesly spotted at the middle of the whorls and at the suture; last whorl sharply keeled in the middle; ventral callus large, rounded; aperture rather rhomboidal, outer lip angular.

PELLETER. Proc. Zool. Soc., 1853.

Hab. New Hebrides.



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HELICINA.

PLATE XXVII.

Species 237. (Mus. Brit.)

HELICINA ECOLOR. *Hel. testâ angulatâ, subdepressâ, ancolatâ, supra et infra angulum rubro tumidâ; spirâ depresso-conicâ; ultimo anfractu ad angulum acutè carinato; callo centrali magno, tumido, rotundo; columellâ infri obliquè acuminatâ, ad juncturam subcylindricâ, labio externo latè reflexo, medio in angulum acutum productâ; callo labii spirâ fere simpliciter.*

THE TWO-COLOURED HELICINA. Shell angular, subdepressed, golden-coloured, ribanded above and below the angle with red; spire depressed-conical; last whorl sharply keeled at the angle; ventral callus large, tumid, rounded; columella obliquely acuminated, a little aculeated at the juncture, outer lip broadly reflected, produced into a sharp angle in the middle; callus and lips brownish blood-colour.

PELLER, Proc. Zool. Soc., 1853.

Hab. Tahiti.

Species 238. (Mus. Brit.)

HELICINA ROSALEE. *Hel. testâ depressâ, et cili, ancolatâ, ad angulum supra et infra rubro tumidâ; spirâ subdepressâ, anfractibus convexo-cilicis, carinatis, ultimo anfractu medio acutè carinato, apicâ carinam convexo; apertura subrhomboidâ, columellâ supra subcylindricâ, infra cum labio externo confluatâ; labio externo albo, angustè reflexo, medio acutè angulato.*

ROSALIE'S HELICINA. Shell depressed, angular, golden, with a ribband of red at the angle above and below; spire rather depressed, whorls a little convex, keeled; last whorl sharply keeled in the middle; convex below the keel; aperture subrhomboidal, columella rather callus above; confluent with the outer lip; outer lip white, narrowly reflected, sharply angular in the middle.

PELLER, Proc. Zool. Soc., 1863.

Hab. Philippines.

Species 239. (Mus. Brit.)

HELICINA ARCANÆ. *Hel. testâ angulatâ, stramineâ, infra angulum rubro anfractâ, supra angulum spirâliter striatâ et decussatâ; spirâ conicâ; ultimo anfractu infri ancolato, levigato, convexo ad angulum acutè carinato. columellâ cum labio externo confluatâ; labio externo supero depresso, ad medium acuminato.*

THE ARC ISLAND HELICINA. Shell angular, straw-coloured, with a single band of red below the angle; spirally striated and decussated above the angle; spire conical; last whorl golden, smooth, convex below, sharply keeled at the angle; columella confluent with the outer lip; outer lip depressed above, acuminated at the middle.

PELLER, Proc. Zool. Soc., 1859.

Hab. Arc Island.

Species 240. (Mus. Brit.)

HELICINA ELYNCOSTOMA. *Hel. testâ depresso, angulatâ, carinatâ, stramineâ, ad angulum supra infriq; angustè rubro-fasciatâ; spirâ conicâ, anfractibus plurimâter depresso; ultimo anfractu paulò infri medium acutissimè carinato, infra carinam convexo-cilicè; callo centrali albo, parvo, rotundo, columellâ brevissimâ; apertura callis rubro-cilicis, labio externo albo, reflexo, in angulum acutissimum producto.*

THE SHORT-MOUTHED HELICINA. Shell depressed, angular, keeled, straw-coloured, with a narrow red band at the angle above and below; spire conical, whorls more or less depressed; last whorl sharply keeled a little below the middle, rather convex below the keel; ventral callus white, small, rounded, columella very short; aperture reddish within, outer lip white, reflected, produced into a very sharp angle.

SHUTTLEWORTH — ? Sowerby's Thesaurus — Helicina, sp. 252, figs. 129, 130.

Hab. Venezuela.

HELICINA.—PLATE XXVII.

Species 241. (Mus. Brit.)

HELICINA CARIBINILLA. *Hel. testâ depressâ, angulatâ, striatâ; spirâliter striatâ; spirâ depressâ-conicâ, inflectibus vic convexis; ultimo anfractu medio acutâ carinato, infra medium convexo; apertura subquadratâ; labio externo reflexo, phanulato infra et suprâ angulum convexiorulo.*

THE KILL-BEARING HELICINA. Shell depressed, angular, straw-coloured, spirally striated; spire depressed, conical, whorls scarcely convex; last whorl sharply keeled in the middle, convex below the keel; aperture subquadrate; outer lip reflected, flattened, rather convex above and below the angle.

OREGON. Voy. Amer. Merid.

Helicina Fischmann. Montfouzier.

Hab. Woodlark Island.

Species 242.

HELICINA GIBBSBERGII. *Hel. testâ depressâ, angulatâ, striatâ; spirâliter striatâ; spirâ depressâ, sub-conicâ, anfractibus convexiorulis, ultimo anfractu medio acutâ carinato, infra medium convexo; callâ ventrali parvo, rotundo, columellâ brevissimâ, labio externo reflexo, phanulato, medio subretrato.*

GIBBSBERGII'S HELICINA. Shell depressed, angular, straw-coloured; spirally striated; spire depressed, rather conical; whorls rather convex, last whorl sharply keeled in the middle, convex below the middle; ventral callus small, round; columella very short; outer lip reflected, flattened.

PILLULE. Proc. Zool. Soc., 1856.

Hab. Chiapa.

Species 243. (Mus. Brit.)

HELICINA BESKI. *Hel. testâ depressâ, angulatâ, spirâliter striatâ, striatâ, ut suturam rubro nigrescentiâ; spirâ conicâ, anfractibus convexiorulis; ultimo anfractu carinato, infra angulum convexo; columellâ parvâ, trigonâ; labio externo albo, reflexo, phanulato.*

BESKI'S HELICINA. Shell depressed, angular, spirally striated, straw-coloured, single banded at the

suture with red; spire conical, whorls rather convex; last whorl keeled, convex below the keel; columella small, trigonal; outer lip white, reflected, flattened.

PEFFERLE. Proc. Zool. Soc., 1856.

Hab. Brazil.

This is another of the large angular species which show a convexity in the whorls, and particularly at the lower part of the last whorl.

Species 244. (Mus. Brit.)

HELICINA TECTA. *Hel. testâ subdepressâ, angulatâ, spirâliter striatâ, acutissimè carinatâ, ad suturam et ad carinam, atque supra et infra, maculis regularibus rictâ rubris serialim ornatâ; spirâ conicâ, anfractibus vic convexis, ultimo anfractu infra convexo; labio externo albo, reflexo.*

THE ROOFED HELICINA. Shell rather depressed, angular, spirally striated, very acutely keeled, ornamented at the suture and at the keel above and below with regular rows of bright red spots; spire conical, whorls scarcely convex; outer lip white, reflected.

SOWERBY. *Thesaurus Couchyiorum. Helicina*, sp. 256, fig. 434.

Hab. — ?

Species 245. (Fig. a, b, Mus. Brit.)

HELICINA SOLIDULA. *Hel. testâ crassâ, angulato-sub-globosâ, lateâ vel purpureâ, callâ et apertura lateis; spirâ convexo-conicâ, ultimo anfractu obtusè carinato; callâ ventrali rotundo, labio externo medio angulatum producto, infra angulum sinuato.*

THE SOLID LITTLE HELICINA. Shell thick, angularly-subglobose, yellow or purple, callus and aperture yellow; spire convex-conical; last whorl obtusely keeled; ventral callus rounded, outer lip angularly produced in the middle, sinuated below the angle.

GRAY. Zoology of Beechy's Voyage, p. 116.

Hab. Marquesas.



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246.^a



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246.^b



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246.^c



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HELICINA.

PLATE XXVIII.

Species 246. (Mus. Brit.)

HELICINA AUCHISMIA. *Hel. testâ depressâ, spirâ conico-concavâ; ultimo angulata medio-angulata; aperturâ transversâ medio-angulata; columella triseriali, pliculata, et antica in angulo subrecto producta.*

THE VERY SHARP HELICINA. Shell indurated, conical, more or less depressed, very sharply angulate; color golden, sometimes banded with blue; spire conical; last whorl sharply keeled in the middle; aperture depressed above, ventral callus rounded, flattened, produced into a beak at the right angle.

SWELLER, Proc. Zool. Soc., 1842.

Hab. Philippines.

Species 247. (Mus. Brit.)

HELICINA TANTIDA. *Hel. testâ conico-concavâ, depressâ angulatâ; spirâ depressâ-concavâ; ultimo angulata medio-angulata, inflexâ circa angulum; callo centrali parvo, rotundato; aperturâ subquadrata, labio externo supero subangulato; columella triseriali, inflexâ rotundata.*

THE PALE HELICINA. Shell fulvous, rather conical, depressed angular; spire depressed-conical; last whorl keeled in the middle, convex below the keel; ventral callus small, rounded; aperture rather square, outer lip a little arched above, middle angular, rounded below.

GOULD, Proc. Bost. Soc., 1847.

Hab. Fiji Islands.

Species 248. (Mus. Brit.)

HELICINA LEISS. *Hel. testâ minutâ, conico-concavâ, depressâ, lenticulari angulatâ; spirâ convexâ; ultimo an-*

gulo medio-obtusâ, curvato-labâ mediano-concavâ; callo centrali rotundato, columella triseriali; aperturâ transversâ oblongâ, superâ depressâ.

THE LEISS HELICINA. Shell minute, reddish, depressed lenticular, angular; spire convex; last whorl diffusely keeled in the middle, convex below the middle; ventral callus rounded; columella triserial; aperture transversely oblong, depressed above.

LEISS, Obs., 1, p. 161.

Hab. Fiji Islands.

Species 249. (Mus. Brit.)

HELICINA UNIFASCIATA. *Hel. testâ depressâ, sublenticulari, spirâliter striatâ, æqualiter supra infraque angulata convexâ, supra angulum rubro-angulata; aperturâ transverse oblongâ, labio externo infra angulum rotundâ arcuata, supra depressâ arcuata.*

THE SINGLE-BANDED HELICINA. Shell depressed, lenticular, spirally striated, equally convex above and below the angle, with a single red band above the angle; aperture transversely oblong, outer lip strongly arched below the angle, depressed-arched above.

GRAY, Zoological Journal, vol. 1, p. 69.

Hab. ———!

Species 250. (Mus. Brit.)

HELICINA AFINICOLA. *Hel. testâ globosâ, solidâ, albâ, spirâliter striatâ, medio-angulata convexâ; spirâ convexâ-depressâ; aperturâ subquadratâ, callo centrali tenui.*

THE SAND-BWELLING HELICINA. Shell globose, solid, white, spirally striated, keeled in the middle of the whorls; spire convex depressed; aperture

rather rounded, columella pointed, outer lip round, reflected; ventral callus thin.

MORDON. Test. Nov. Cub.

Hab. Cuba.

Species 251. (Mus. Brit.)

HELICINA DIAPHANA. *Hel. testâ parvâ, tenui, latâ, subangulatâ; spirâ brevi, conicâ; ultimo anfractu obtusè angulato; columellâ trigonâ. labio externo medio producto.*

THE TRANSPARENT HELICINA. Shell small, thin, yellow, rather angular; spire short, conical; last whorl obtusely angular; columella trigonal, outer lip produced in the middle.

PFEIFFER. Proc. Zool. Soc., 1859.

Hab. Honduras.

Species 252. (Mus. Brit.)

HELICINA FUMIGATA. *Hel. testâ parvâ, tenui, angulatâ, levigatâ, fumoso-fuscâ, fusco-rubescenti ad suturam medianam fasciatâ; columellâ parvâ, obovâtâ, labio externo albo, angustâ.*

THE FUMIGATED HELICINA. Shell small, thin, angular, smooth, smoky-brown, with a reddish-brown ribband at the suture and one in the middle; columella small, aculeated, outer lip white, narrow.

SOWERY. Thesaurus Conchyliorum. Helicina, sp. 193, f. 345.

Helicina Gouldiana, Forbes.

Hab. Cape Flattery.

Species 253. (Mus. Brit.)

HELICINA ORBIGNYI. *Hel. testâ depressâ, sublenticulari, obscurè fuscâ; spirâ brevi; ultimo anfractu obtusis-*

simè angulato, callo ventrali tenui, columellâ parvâ, albâ, aculeatâ; aperturâ transversè oblongâ.

ORBIGNY'S HELICINA. Shell depressed, nearly lenticular, dull brown; spire short; last whorl very obtusely angular; ventral callus thin, columella small, white, aculeated; aperture transversely oblong.

PFEIFFER. Monograph No. 65.

Hab. Cuba.

Species 254. (Mus. Brit.)

HELICINA FORBESIANA. *Hel. testâ parvâ, subangulatâ, fulvo-lutescenti; spirâ conicâ, anfractibus parvis; ultimo anfractu medio obtusè angulato; columellâ minutâ, albâ, aculeatâ; labio externo angustissimè reflexo, ad puncturam inferiorum tenuissimâ.*

FORBES'S HELICINA. Shell small, rather angular, fulvous yellow; spire conical, whorls small; last whorl obtusely angular in the middle; columella minute, white, aculeated; outer lip very narrowly reflected, very thin at the lower juncture.

PFEIFFER. Proc. Zool. Soc., 1859.

Helicina revcondia?

Hab. Cape York.

Species 255. (Mus. Brit.)

HELICINA MINUTA. *Hel. testâ parvâ, depressâ, sublenticulari, fumoso-fuscâ; spirâ parvâ, anfractibus minutis; ultimo anfractu medio obtusè angulato; columellâ albâ, brevi, acuminatâ; labio externo tenui.*

THE MINUTE HELICINA. Shell small, depressed, rather lenticular, smoky-brown; spire small, whorls minute; last whorl obtusely angular in the middle; columella white, short, acuminated; outer lip thin.

SOWERY. Proc. Zool. Soc., 1842.

Hab. Opara Island.



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HELICINA.

PLATE XXIX.

Species 256. (Mus. Brit.)

HELICINA HANLIYANA. *Hel. testâ globoso-subangulata, pallidâ, fulvâ; spirâ conicâ, aperturâ angustâ, callosâ, alba; ultimo anfractu subrotundo; columellâ trigonâ; labio externo retuso.*

HANLEY'S HELICINA. Shell globose-conical, pale fulvous; spire conical, whorls rather convex; last whorl rather round, columella trigonal, outer lip round.

PELLETER, Proc. Zool. Soc., 1848.

Hab. New Orleans.

Species 257. (Fig. a, b, Mus. Brit.)

HELICINA LOUISIANENSIS. *Hel. testâ parvâ, pallidissimâ, fulvâ, tenui; spirâ subcono. et depressâ, ultimo anfractu rotundo; columellâ parvâ, trigonâ; labio externo reflexo, albo.*

THE LOUISIANA HELICINA. Shell small, very pale fulvous, thin; spire a little conical depressed, last whorl round; columella small, trigonal; outer lip reflected, white.

FORBES, Voyage of Rattlesnake.

Hab. Round Island.

Species 258. (Fig. a, b, Mus. Brit.)

HELICINA DYSONI. *Hel. testâ depressâ-globosâ, tenui, spirâ et labio trigonantâ; spirâ conicâ, depressâ; ultimo anfractu infâ callosâ, callo rotundo, albo; columellâ parvâ, ventricosâ; aperturâ semilunari; labio externo angustâ.*

DYSON'S HELICINA. Shell depressed-globose, thin, spirally three-banded with red; spire conical, depressed; last whorl callous below, callus rounded white; columella small, rather straight; aperture semilunar; outer lip narrow.

PELLETER, Proc. Zool. Soc., 1848.

Heliconia furcata, Pfeiffer (Dyson, var.).

Hab. Honduras, Isl. St. Thomas.

Species 259. (Fig. a, b, Mus. Brit.)

HELICINA MODESTA. *Hel. testâ globoso-subangulata, luteâ, tenui; spirâ conicâ, subulatâ, anfractibus convexiusculis; ultimo anfractu rotundo-angulato, columellâ trigonâ, acuminatâ; labio externo tenui.*

THE MODEST HELICINA. Shell globose-subangular, yellow, thin; spire conical, rather elated, whorls rather convex; last whorl rounded, angular; columella trigonal, acuminated; outer lip thin.

PELLETER, Proc. Zool. Soc., 1853.

Hab. New Hebrides.

Species 260. (Mus. Brit.)

HELICINA OCCULTA. *Hel. testâ parvâ, globosâ, pallidâ, fulvâ, solidiusculâ, medio albo fasciatâ, spirâ et infâ rubro fasciatâ; spirâ rite conicâ, anfractibus parvis, convexiusculis; ultimo anfractu rotundo; columellâ parvâ, trigonâ, albâ; labio externo albo, granulato, reflexo.*

THE HIDDEN HELICINA. Shell small, globose, pale fulvous, rather solid, banded with white in the middle, and with red above and below the middle; spire scarcely conical, whorls small, rather convex; last whorl rounded; columella small, trigonal, white; outer lip white, flattened, reflected.

SOWLEY, Trans. Conch. Helicinar. t. 137.

Hab. New York.

Species 261. (Mus. Brit.)

HELICINA ORBICULATA. *Hel. testâ globosâ, crassâ, fulvâ, spirâ parvâ; ultimo anfractu ventricoso; callo ventrali rotundo, columellâ cum labio externo confluenti, ad juncturam obscurissimâ angulato; labio externo crassiusculo; aperturâ semicirculari.*

THE ORBICULAR HELICINA. Shell globose, thick, fulvous; spire small; last whorl ventricose; ventral callus

HELICINA.—PLATE XXIX.

rounded, columella confluent with the outer lip, very obscurely angular at the juncture; outer lip rather thick; aperture half round.

SOWERBY. Philosophical Journal, vol. i. p. 283.
Hab. North America.

Species 262. (Mus. Brit.)

HELICINA JAPONICA. *Hel. testâ globosâ, albidâ, crassâ, spirâ conicâ, acuminatâ, anfractibus saeviusculis; ultimo anfractâ rotundâ; columellâ triangulâ, ad juncturam incisâ; labio externo crasso, rotundo.*

THE JAPAN HELICINA. Shell globose, whitish, thick, spire conical, acuminate, whorls rather convex; last whorl rounded; columella triangular, incised at the juncture; outer lip thick, rounded.

A. ADAMS. Ann. and Mag. of Natural History, 1861.
Hab. Japan.

This rounded species rather resembles *Helicina orbiculata*, from which it differs in having the columella separated from the outer lip by an incised notch.

Species 263 (Mus. Brit.)

HELICINA SÆONICA. *Hel. testâ albidâ, tenui, subangulâtâ, spirâ conicâ elevatâ; ultimo anfractâ medio obtusè angulatâ; columellâ cum labio externo confluenti; labio externo superius delicti, medio rotundo, basi retiusculo.*

THE RATHER CONICAL HELICINA. Shell white, thin, rather angular; spire conical, elevated; last whorl obtusely angular in the middle; columella con-

fluent with the outer lip; outer lip sloped above, rounded in centre, rather straight at the base.

SOWERBY. Theophrastus Conchyliorum. *Helicina*, sp. 140, fig. 226.

Hab. —?

Species 264. (Mus. Brit.)

HELICINA YORKENSIS. *Hel. testâ brevi, subangulatâ, tenui, latâ, superâ et infra medium fulvescenti, spirâ conicâ; aperturâ semilunari; columellâ brevissimâ, aculatâ.*

THE CAPE-YORK HELICINA. Shell smooth, rather angular, thin, yellowish, fulvescent above and below the middle; spire conical; aperture semi-lunar; columella very short, aculeated.

PRESTON. Proc. Zool. Soc., 1862.
Hab. Cape York.

Species 265. (Fig. a, b, Mus. Brit.)

HELICINA SUTLEVIATA. *Hel. testâ globoso-angulatâ; fulvâ unicolori vel latè superâ et infra fasciatâ; ultimo anfractâ subangulatâ; collo ventrali tumido, rotundo; columellâ minutâ, aculatâ, labio externo rubro.*

THE SMOOTHISH HELICINA. Shell globose, subangular, uniform fulvous or broadly banded above and below; last whorl rather angular, ventral callus tumid, rounded; columella minute, outer lip, red.

PRESTON. Proc. Zool. Soc. 1852.
Hab. New Hebrides.



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HELICINA.

PLATE XXX.

PLATE 264.

The *Helicina* described in Plate XXIX, for *Helicina* *P. Bosc.* is a variety of *Helicina*.

Species 265. (Mus. Brit.)

HELICINA DEYBONENSIS. *Hel. testis parvâ, subopulâtâ, subdepressâ, pallidâ, fulvâ; spirâ spirâ spirâ; sutura, sutura, sutura; columella, columella, columella; labio externo tenui.*

DEYBON'S HELICINA. Shell globose, spiriferous, yellow, rather solid; spire short, whorls small; last whorl roundly angular in the middle; columella short, white, confluent with the outer lip; outer lip rounded, reflect'd, white.

PETITIEU. Proc. Zool. Soc., 1856.

Hab. Australia.

Species 267. (Mus. Brit.)

HELICINA BOENJANENSIS. *Hel. testis parvâ, subopulâtâ, subdepressâ, pallidâ, fulvâ; spirâ spirâ spirâ; sutura, sutura, sutura; columella, columella, columella; labio externo rufâ, piloso.*

THE BOENJAN HELICINA. Shell small, rather angular, rather depressed, pale fulvous, with two reddish-brown spiral bands; spire depressed-conical; last whorl narrow, obtusely angular in the middle; columella small, oblique, white; outer lip scarcely reflect'd.

MARTENS. Monatschriften, B. Klin. Akademie, 1864.

Hab. Borneo.

A very neat little species, with conical spire and two reddish-brown bands.

Species 268. (Mus. Brit.)

HELICINA PUTELLA. *Hel. testis minutâ, depresso-subglobosâ, pallidâ, fulvâ, supernâ flumâis rubris pictâ; columellâ minutâ; labio externo tenui.*

THE LITTLE FAINTLY HELICINA. Shell minute, depressed-subglobose, pale fulvous, painted above with red flames; columella minute; outer lip thin.

PETITIEU. Proc. Zool. Soc., 1856.

Hab. Norfolk Island.

Species 269. (Mus. Brit.)

HELICINA OLEOSA. *Hel. testis minutâ, globosâ, fulvâ; sutura, sutura, sutura; columella, columella, columella; labio externo tenui.*

THE OILY HELICINA. Shell minute, globose, fulvous; painted with oblique red lines interrupted or angular in the middle; spire convex-conical; whorls convex; last whorl narrow, obtusely angular in the middle; columella small, white, trigonal; aperture brown within, outer lip thin.

PETITIEU. Proc. Zool. Soc., 1852.

Hab. Haiti.

Species 270. (Mus. Brit.)

HELICINA PHASIANELLA. *Hel. testis parvâ, depresso-subglobosâ, tenui; fulvo-rubescenti, maculis propiâ suturam; fasciâque duabus medio et infirâ rubris pictâ; spirâ conicâ, apicâ rubro; columellâ trigonâ, albâ; labio externo tenui.*

THE PHASIAN HELICINA. Shell small, depressed-subglobose, thin; reddish-brown, painted with red spots near the suture, and two bands in the middle and below; spire conical, apex red; columella trigonal, white; outer lip thin.

PETITIEU. Malak., vol. iii. 1856.

Hab. Porto Rico.

Species 271. (Mus. Brit.)

HELICINA MULTIFASCIATA. *Hel. testis depressâ, angulatâ, pallidâ, tenuiter spirâ spirâ spirâ; sutura, sutura, sutura; columella, columella, columella; labio externo tenui.*

depresso-conicâ; ultimo anfractu rotundatim angulato; callo ventrali albo, rotundo; columellâ tenuissimâ; labio externo tenui, angulato.

THE MANY-BANDED HELICINA. Shell depressed, angular, pale, with numerous thin spiral bands; spire depressed-conical; last whorl roundly angular; ventral callus white, rounded; columella very thin; outer lip thin, angular.

BAIRD. Cruise of the *Caracota*.

Hab. South Sea Islands, J. Brencley, Esq.

Species 272. (Mus. Brit.)

HELICINA JULIE. *Hel. testâ depresso-subglobosâ, pallidâ aurantiâ, viridi strigatâ, lineis fulvis ornât dispositis superiôr et parvâ infri medium pictâ; ultimo anfractu rotundatim angulato; columellâ parvâ, albâ; labio externo tenui.*

JULIE'S HELICINA. Shell depressed-subglobose; pale orange, striped with green, painted with fulvous lines arranged ornamentally above and a little below the middle; last whorl roundly angular; columella small, white; outer lip thin.

BAIRD. Cruise of the *Caracota*.

Hab. Cockatoo Island, Solomon's Islands, J. Brencley, Esq.

Species 273. (Mus. Brit.)

HELICINA BRENCLEYI. *Hel. testâ angulatâ, depressâ, pallidâ fuscâ, maculis subquadrotis ad suturam et super carinam, lineisque flavosis ornât dispositis*

pictâ; spirâ depressâ; ultimo anfractu medio carinato, infri carinam ferè immaculatâ; columellâ parvâ, rectâ, rubro-immaculatâ; aperturâ angulatâ.

BRENCLEY'S HELICINA. Shell angular, depressed, pale fulvous, painted with red spots at the suture and upon the angle and flexuous lines ornamentally arranged; spire depressed; last whorl keeled in the middle, almost spotless under the keel; columella small, straight, with a single red spot; aperture angular.

BAIRD. Cruise of the *Caracota*.

Hab. South Sea Islands.

Species 274. (Mus. Brit.)

HELICINA STRIGATA. *Hel. testâ parvâ, roseo-albâ, nitenti, translucetâ, subangulatâ; spirâ depresso-conicâ, anfractibus supra angulos lineis rubris, elegantè arcuatis pictis; ultimo anfractu depresso-angulato, infri angulum fusco unifasciato, callo ventrali tumido, subcruato.*

THE STRIPED HELICINA. Shell small, rosy-white, shining, translucent, rather angular; spire depressed-conical, whorls painted with red lines ornamentally arranged; last whorl depressed-angular, with a single soft band below the angle; ventral callus tumid, bluish.

BAIRD. Cruise of the *Caracota*.

Hab. Upolu, Navigators Island.

This and the three preceding interesting little species are described and figured in Mr. Brencley's "Cruise of H.M.S. *Caracota*."



brevisimâ, tenui, collo centrali tenui, rotundo, fusco-rubro, labio externo tenui; spirâ brevissimâ.

THE BENIG HELICINA. Shell compressed, thin, smooth, appearing under the lens very minutely decussated, pale fulvous; aperture brown-red within, columella very short, thin, ventral callus thin, rounded, red-brown, outer lip thin; spire very short.

CROSSE. Journal de Conchyliologie, vol. xviii. p. 246. 1870, Pl. VI. (1871), fig. 7.

Hab. New Caledonia.

Species 280. (Mus. Crosse.)

HELICINA PORPHYRSTOMA. *Hel. testâ subtrachiiformi, laevi, albi; spirâ brevissimâ, anfractibus paucis, convexiusculis; ultimo anfractu medio obtusissimè angulato; apertura rubri, labio externo tenui, columellâ obliquâ, angustâ, collo centrali rotundo, rubro.*

THE PORPHYRY-MOUTHED HELICINA. Shell rather trochiiform, smooth, white; spire rather short, whorls few, rather convex; last whorl very obtusely angular in the middle; aperture red, outer lip thin, columella oblique, narrow, ventral callus rounded, red.

CROSSE. Journal de Conchyliologie, 1870, p. 245, Pl. VI. t. 6. (1871).

Hab. New Caledonia.

Species 281. (Mus. Crosse.)

HELICINA MORIENSIS. *Hel. testâ globoso-subcompressâ, ferè albi, apertura colloque rubris; spirâ depressâ, subconicâ, anfractibus paucis, planiusculis; ultimo anfractu compresso, subrotundato; labio externo angustè reflexo, columellâ parvâ, arcuatâ, collo centrali capitulo.*

THE MOUNT-MORI HELICINA. Shell globose, subcompressed, almost white, aperture and callus red; spire depressed slightly conical, whorls small, few,

rather flat; last whorl compressed, rather rounded; outer lip narrowly reflected, columella small, arched, ventral callus spread.

CROSSE. Journal de Conchyliologie. 1870. p. 246. fig. 5, Pl. VI., 1781.

Hab. Mount Mori, New Cal-donia.

Species 282. (Mus. Brit.)

HELICINA GUNDLACH. *Hel. testâ parvâ, compressâ, solidiusculâ, pallidè fulvâ, nonnunquam lineis rubris spirâliter cinctâ; spirâ depressâ, subconicâ, ultimo anfractu compresso; apertura intâs pallidè aurâ; labio externo rix reflexo; columellâ parvâ.*

GUNDLACH'S HELICINA. Shell small, compressed, rather solid, pale fulvous, sometimes spirally girt with red lines; spire depressed, rather conical, last whorl compressed; aperture pale golden within; outer lip scarcely reflected; columella small.

PREIFFER. Malak. Bl. iii. 1856.

Hab. Porto Rico.

Species 283. (Mus. Crosse?)

HELICINA UEA. *Hel. testâ parvâ, compressâ, albidâ, vel flavido rufâ; spirâ conicâ, anfractibus angustis, subplanulatis; apice aurantiô; apertura parvâ, semicirculari, flavidâ; labio externo superne subarcuato medio rectiusculo; columellâ parvâ, brevi, collo centrali parvo, rotundo, rubro circumsincto.*

THE UEA HELICINA. Shell small, compressed, whitish, or rayed with yellow; spire conical, whorls narrow, rather flat; apex orange; aperture small, semicircular, yellowish; outer lip arched above, rather straight in the middle; columella small, short, ventral callus small, rounded, circumscribed with red.

MOUSSON. Journal de Conchyliologie, 1871, p. 23. Pl. III., fig. 9.

Hab. Uea.



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HELICINA.

PLATE XXXII.

Species 284. (Mus. Brit.)

HELICINA (OR) PENYI. *Hel. testâ parvâ, depressa-convexâ, latâ, striatâ, suturâ impressâ, aperturâ subrotundâ, callosâ, subrotundâ, subcirculari; labio externo parvâ, ultimo auriformi medio emarginato, inflexo, callosâ, subrotundâ, subcirculari; labio interno parvâ, subrotundâ.*

THE SMALL HELICINA. Shell small, slightly conical, smooth, subgl., pale fulvous; apex red, punctulate; whorls red banded below, last whorl subobovate, apertured; suture somewhat auriform; columella small, rather straight; outer lip narrowly rounded.

GENEVA, Malak. Bl. iv. 1874.

Hab. Cuba.

Species 285. (Mus. Brit.)

HELICINA (OR) LIGOSA. *Hel. testâ parvâ, depressâ, convexâ, latâ, striatâ, suturâ impressâ, aperturâ subrotundâ, callosâ, subrotundâ, subcirculari; labio externo parvâ, ultimo auriformi medio emarginato, inflexo, callosâ, subrotundâ, subcirculari; labio interno parvâ, subrotundâ, subcirculari.*

THE WINKLED HELICINA. Shell minute, pale yellowish, compressed, rather thin, obliquely strongly and roughly striated; suture impressed, spirals depressed, conical, whorls few, small, convex; last whorl rounded at the circumference, a little flattened beneath; ventral callus thin, depressed, outer lip scarcely thickened.

PLATE.—?

Hab. Isl. Talibé, Pacific.

Species 286. (Mus. Brit.)

HELICINA (OR) PARIPIA. *Hel. testâ parvâ, globosâ, subangulatâ, pallidâ, subcirculari, tenuissimâ striatâ, spirâ conicâ, parvâ, levitâ, suturâ impressâ, callosâ, centrali tenuiter granulosa; labio externo tenui, reflexo; columellâ parvâ.*

THE LITTLE HELICINA. Shell minute, globose, somewhat angular, pale greenish-grey, very finely

striated, spire conical, a little elevated, suture impressed; ventral callus finely granular; outer lip thin, reflected; columella small.

PLATE.—?

Hab. Isl. Aitû, Pacific.

Species 287. (Mus. Cross.)

HELICINA (OR) CLEMENSIS. *Hel. testâ parvâ, depressâ, angulatâ, obliquâ striatâ, flexuâ et carinâ callosâ, spirâ parvâ, conicâ, subrotundâ, parvâ, parvâ, ultimo auriformi medio emarginato, inflexo, callosâ, subrotundâ, subcirculari; labio externo parvâ, ultimo auriformi medio emarginato, inflexo, callosâ, subrotundâ, subcirculari; labio interno parvâ, subrotundâ, subcirculari.*

THE CLEMENSIS HELICINA. Shell small, depressed, angular, obliquely striated, yellowish or flesh-white, spire depressed, convex, whorls few, small; last whorl keeled in the middle, convex below the keel; aperture subtriangular, outer lip reflected, a little flexuous above; columella small, ventral callus flattened, semicircular.

MORISON, Journ. de Conch., 1874, p. 26, Pl. III, f. 10.

Hab. Isl. Navajo, Pacific.

Species 288. (Mus. Brit.)

HELICINA (OR) MEXICA. *Hel. testâ depressâ, angulatâ, levigatâ, pallidâ, fulvâ, superâ et ad angulum nudo, rubris arcuatis ornata; spirâ brevi, conicâ, angulatâ, parvâ, parvâ; ultimo auriformi inflexo, callosâ, subrotundâ, subcirculari; aperturâ parvâ, labio externo leviter reflexo.*

THE MEXICAN HELICINA. Shell depressed, angular, smooth, pale fulvous, ornamented above and at the angle with red arcuated spots; spire short, conical, whorls flattened; last whorl convex below the middle; ventral callus smooth; aperture small, outer lip slightly reflected.

GENUS.—?

Hab. Isl. Texaco, Ujopa, Pacific.

This species is usually found on the leaves of trees.

The specimens of one variety have no markings on the under part of the last whorl.

Species 289. (Mus. Brit.)

HELICINA OCEANICA. *Hel. testâ montâ, compressâ, levigatâ, medio angulatâ; superne lineis undulatis coloris nubi; aperturâ triangulâ; labio cetero tenui, hinc reflexo.*

THE OCEANIC HELICINA. Shell minute, compressed, smooth, angular in the middle; marked above with undulating red lines; aperture triangular; outer lip thin, not reflected.

GOULD. — ?

Hab. Isl. Apurung, Pacific.

More flattened than *Hel. musica*, with the outer lip not reflected.

Species 290. (Mus. Crosse.)

HELICINA SCHRAMMI. *Hel. testâ parvâ, trochiformi, fuscescentiâ, tenui, tumore convexitatisâ stantâ; spirâ levigatâ, anfractibus quinque, subelevatis, paulo convexis, ultimo anfractu supra medium obtusè angulatâ; columellâ albâ, infidâ subnuculatâ; callo centrali albo, parvo, rotundo; labio cetero tenui.*

SCHRAMM'S HELICINA. Shell small, trochiform, horny, brown, thin, finely concentrically striated; spire conical, whorls five, slightly elevated, a little convex; last whorl obtusely angular above the middle; columella white, a little emarginate below; ventral callus white, small, round, outer lip thin.

CROSSE. *Journ. de Conch.*, 1873, p. 251, Pl. III., f. 10. *Hab.* Woods of Matoula, Guadeloupe.

Species 291. (Mus. Brit.)

HELICINA MONTANA. *Hel. testâ parvâ, callo depressâ, immo-fusci; spirâ depressâ, anfractibus conplanatis, ultimo anfractu medio carino tenui ovalato cincto, infidâ carinam depressâ, circum callum ventralem sulcatâ. callo centrali parvo, rotundo; aperturâ angulatâ; columellâ parvâ, obliquâ, labio cetero medio venter angulatâ.*

THE MOUNTAIN HELICINA. Shell small, much depressed; snaky brown; spire depressed, whorls flattened;

last whorl girt in the middle with a thin crenulated keel, depressed below the keel, sulcated round the ventral callus; ventral callus small, round; aperture angular, columella small, oblique, outer lip sharply angular in the middle.

WRIGHT. — ?

Hab. Cuba.

This flattish little species is remarkable for having a depression or groove round the ventral callus.

Species 292. (Mus. Brit.)

HELICINA CONSTRICTA. *Hel. testâ crassâ, subdepressâ, angulatâ, stramineâ vel pallide rosâ, nonnupquam rubâ interruptim strigatâ; spirâ convexo-convexâ, anfractibus globulatis; ultimo anfractu paulo infra medium angulatâ, obtusè carinato, infra carinam convexo, prope aperturam contracto; aperturâ parvâ, rubâ, columellâ parvâ, callo centrali et labio cetero vixitâ rubris.*

THE CONSTRICT HELICINA. Shell thick, subdepressed, angular, straw-coloured or pale rose, sometimes interruptedly striped with red; spire convex-conical, whorls flattened; last whorl angular a little below the middle, obtusely keeled, convex below the keel; contracted near the mouth; aperture small, red, columella small, ventral callus and outer lip bright red.

PYRRELL. *Proc. Zool. Soc.*

Hab. Sandwich Islands.

Species 293. (Mus. Brit.)

HELICINA RIFATA. *Hel. testâ parvâ, globosâ, griseo-albâ; spirâ parvâ, acuminatâ; anfractibus parvis, parvis; ultimo anfractu magno, rotundo; callo centrali tumido, aperturâ obliquâ, semilunari, columellâ parvâ, ad procturam contractâ, labio cetero angusto, reflexo.*

THE RIVER-BANK HELICINA. Shell small, globose, greyish-white; spire small, acuminated; whorls few, small; last whorl large, round; ventral callus tumid; aperture oblique, semilunar, columella small, emarginate at the juncture; outer lip narrow, reflected.

PIRELLI. — ?

Hab. Banks of the Magdalene, New Granada.



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296



297



a



b

298



a



b

299



300



301



302



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HELICINA.

PLATE XXXIII.

Species 294. (Mus. New York.)

HELICINA CHRYSOCHEILA. *Hel. testâ globoso-pyramidatâ, albâ, tenui, nitenti, minutissime puncturati, spirâ elevatâ, conicâ; anfractibus convexis, obacutè angulatis, infâ subplanatis; aperturâ magna, subovata, subaurâ; labio externo reflexo, callu ventrali et labio externo auris.*

THE GOLDEN-MOUNTAIN HELICINA. Shell globose, pyramidal, white, thin, shining, very minutely punctured; spire elevated, conical; whorls convex, obscurely angular, rather flattened below; aperture large, subovate, golden; outer lip reflected; ventral callus and outer lip golden.

BINNEY. *Ann. Jour. Conch.*, 1869, 13, Pl. XVIII., f. 21. *Hab.* Texas; Mexico.

Species 295. (Mus. Brit.)

HELICINA NOVAE-CALIBONIAE. *Hel. testâ subglobosâ, pallidè fulvâ, laevigatâ; spirâ elevatâ, anfractibus convexis, superè declivis; ultimo anfractu inflato, callu ventrali tumido; aperturâ semilunari, labio externo tenui, reflexo.*

THE NEW CALIBONIAN HELICINA. Shell subglobose, pale fulvous, smooth; spire elevated, whorls convex, sloped above; last whorl inflated, ventral callus tumid; aperture semilunar, outer lip thin, reflected.

BAIRD. *MS. Mus. Brit.*

Hab. New Caledonia.

Species 296. (Mus. Brit.)

HELICINA BEVILAKRIS. *Hel. testâ parvâ, globosâ, stramineâ, semipellucidâ; anfractibus rubro unilicatis; spirâ elevatâ, anfractibus paucis, parvis, convexis, apice acuminato; aperturâ infâ mollium declivè, labio externo brevi, angusto, rotundo.*

THE SHORT-LIPPED HELICINA. Shell small, globose, straw-coloured, semipellucid; whorls with one red line; spire elevated, whorls few, small,

convex, apex acuminated; aperture sloped below the middle, outer lip short, narrow, rounded.

PEPILLIE. — ?

Hab. Chiappa, Mexico.

Species 297. (Fig. a, b, Mus. De Burgh.)

HELICINA BELICOSHORMIS. *Hel. testâ globosâ, tenui, rufâ, rufè vel purpurâ; spirâ parvâ, anfractibus paucis, apice acuminato; ultimo anfractu magno, rotundo, infâ subovato; columellâ crassi, rotundi, medio rotundatâ callosâ, infâ aculatâ; aperturâ magna, labio externo lato, rotundo, latè reflexo; operculo cornico, paucispirali.*

THE BELICOSH HELICINA. Shell globose, thin, bright green or purple; spire small, whorls few, apex acuminated; last whorl large, rounded, slightly excavated below; columella thick, rounded, with a rounded callus in the middle, aculeated below; aperture large, outer lip broad, rounded, broadly reflected; operculum horny, spiral, with few whorls.

PEPILLIE. *Helicorum viventium.*

Bourciera heleniformis, Pfeiffer.

Hab. — ?

This is one of two species which differ from the true *Helicina* in having a horny spiral operculum. There are several peculiarities in which this agrees with *Sp. 302*.

Species 298. (Fig. a, b, Mus. Brit.)

HELICINA COLOBYA. *Hel. testâ parvâ, solidâ, laticâ, interdum fuscâ, vel rubra fasciatâ, vâlvè depressâ, angulatâ; spirâ brevissimâ, anfractibus paucis, minutis; ultimo anfractu magno, superè convexo, medio obtusè carinato, infâ carinam convexo, callu magno, tumido, columellâ minutâ, indistinctâ, labio externo rufè incrassato, medio vâlvè angulato, infâ ad columellam subanarginato.*

THE COLOBYED HELICINA. Shell small, solid, yellow, sometimes brown or banded with red, much

depressed, angular; spire very short, whorls few, minute; last whorl large, convex above, obtusely carinated in the middle, convex below the keel, callus large, tumid; columella very small, indistinct, outer lip scarcely thickened, sharply angular in the middle, slightly emarginated at the columella below.

PLATE. American Journ. of Sci. 1869, Pl. XII, f. 9.
Hab. Ainaia, Pacific.

Species 299. (Mus. Brit.)

HELICINA FLAVESCENS. *Hel. testâ parvâ, solââ, globoso-trachiformi, fluvââ, spirâ elevatâ, convexâ, anfractibus paucis, convexis, apice acuminato; ultimo anfractu magno, globoso, supra aperturam levato; cutâ medianâ obtusè angulatâ, rix carinato; aperturaâ superâ depressâ, declivi, collo ventrali tumido, columellâ parvâ.*

THE YELLOWISH HELICINA. Shell small, solid, globose-trachiform, yellow, spire elevated, convex, whorls few, convex, apex acuminated; last whorl large, globose, elevated above the aperture, obtusely angular below the middle, scarcely keeled; aperture depressed, sloped above, ventral callus tumid, columella small.

PLATE. Shells of the Pacific Islands.
Hab. Mangaia.

Although this and the preceding species are very different in form, there is a strong affinity between the two.

Species 300. (Mus. Brit.)

HELICINA SUPREMAS LATA. *Hel. testâ angulatâ, subdepressâ, tenui, stramineâ, supra medium rubro nigrescenti; spirâ conici, anfractibus planulatis; ultimo anfractu, medio acutè angulato, carinato, cutâ carinam eadè convexâ; aperturaâ parvâ, subumbonââ, columellâ parvâ, aculeatâ; labiâ exteriori angustâ, rotundâ, supra et infra angulum subnotâ.*

THE HIGH-BANDED HELICINA. Shell angular, subdepressed, thin; straw-coloured, single banded with red above the middle; spire conical, whorls flattened; last whorl sharply angular in the middle, keeled, very convex below the keel; aperture small, sub-umbonoidal, columella small, aculeated;

outer lip narrow, round, rather arched above and below the angle.

SOWERBY.

Hab. Australia.

Dr. Baird does not appear to have described this species among those brought by Mr. Brenchley.

Species 301. (Mus. Brit.)

HELICINA LAMIELIANA. *Hel. testâ trochiformi, angulatâ, tenui, superâ rictâ sulphureâ, infra pallidâ; spirâ acuminatâ, infra apicem paulò concavâ, dimidè convexâ; ultimo anfractu medio angulato; aperturaâ subtrigonâ, albâ, collo ventrali tenui, columellâ aculeatâ; labiâ exteriori leviter reflexâ, paulò expansâ.*

LAMILE'S HELICINA. Shell trochiform, angular, thin, bright sulphur above, pale below; spire acuminated, a little concave below the apex, thence convex; last whorl angular in the middle; aperture sub-trigonal, white, ventral callus thin, columella aculeated; outer lip lightly reflected, a little expanded.

D'ORBIGNY. Mollusques de Cuba.

Hab. Cuba.

This is one of the species that we failed to identify in the *Thesaurus Monograph*.

Species 302. (Mus. Brit.)

HELICINA FRASERI. *Hel. testâ globosâ, subdepressâ, aurantâ, spirâ parvâ, anfractibus paucis; ultimo anfractu magno, globoso-subdepressâ; aperturaâ acutâ; labiâ exteriori rotundâ; columellâ crassâ, infra retrorsim aculeatâ; collo ventrali parvo; operculo cornuâ, paucispicali.*

FRASER'S HELICINA. Shell globose, subdepressed, orange, spire small, whorls few; last whorl large, globose-subdepressed; aperture ovate; outer lip rounded; columella thick, aculeated backwards below; ventral callus small; operculum horny, spiral, with few whorls.

PIEBILLE (Boitardera) Helicorum viventium.

Hab. Cuenca.

The second species of this interesting genus, or subgenus, differs from the first in having a more depressed form, a more oval and less oblique mouth, and less rounded callus.



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HELICINA.

PLATE XXXIV

Species 306. (Fig. *a, b*, Mus. Moisson.)

HELICINA OULIOMIS. *Hel. testis depressa, subdepressa, subangulata et emarginata, supero-convexa, pila et impressa, ad, a, b, c, d, e, f, g, h, i, subdepressa, antrochilica, convexa, ultimo a caracina supra-convexa, testis, convexa, aperturâ obliquâ subquadrata, calli antici, ligati, calli ventrali tenui.*

THE LION-SHAPED HELICINA. Shell of shell pale, subdepressed, angular and beveled in the middle, spirally impressed striated, orange above, red below; keel, apex depressed, whorls rather convex; last whorl smooth below the keel, convex; aperture obliquely subquadrate, columella oblique; ventral callus thin.

MOISSON, Journal de Conchyliologie, 1870, p. 139, Pl. VIII, f. 7.

Hab. Viti Islands.

Species 304. (Mus. Cresson.)

HELICINA LIUPEANA. *Hel. testis subrotundâ, pallide emarginatâ, caracina; aperturâ ovata, antrochilica parva, apex obtusa, pallida; ultimo anfractu obscure angulato, infusâ pallide convexa, calli ventrali lato, lateri, tenui, aperturâ parvâ, oblique semilunari, labio externo angustâ, rotundo, aperturâ depressâ.*

THE LILIPUT HELICINA. Shell subglobose, pale emarginate, fleshy; spire convex, whorls small, apex obtuse, pale; last whorl obscurely angular, very convex below; ventral callus broad, yellow, tumid; aperture small, obliquely semilunar, outer lip narrow, round, depressed above.

CRESSON, Journ. de Conch., 1869, p. 25, Pl. II, f. 5.

Hab. Lifou, New Caledonia.

Species 305. (Fig. *a, b*, Mus. — ? Copied.)

HELICINA MARIE. *Hel. testis depressâ, griseo-pallidâ, subangulata, ad angulum subconvexe maculis rubris*

et subobovatis rotundis, spira depressâ, antrochilica planulatis; ultimo anfractu lato, compresso, aperturâ obliquâ, columella parvâ, calli ventrali tenui; labio externo angustâ, rotundo.

MARIE'S HELICINA. Shell depressed, fulvous grey, slightly angular, marked at the angle and suture with red rhomboidal spots; spire depressed, whorl-flattened; last whorl wide, compressed; aperture oblique; columella small, ventral callus thin; outer lip narrow, rounded.

CRESSON, Journ. de Conch., 1870, p. 245, Pl. XIII, f. 9.

Hab. New Caledonia.

Species 306. (Mus. Moisson.)

HELICINA INTERNA. *Hel. globoso-subtrochiformi, tenui, laevigatâ, pallidâ stramineâ, fasciâ rubrâ angustâ parvâ supra medianâ cinctâ; spira conici, elevatâ; antrochilica parvâ convexa; calli ventrali tenui, expansi, pallidâ roseo-filicentâ.*

THE INTERNAL HELICINA. Shell globose-subtrochiform, thin, smooth, pale straw, girt with a narrow red band a little above the middle; spire conical, elevated; whorls a little convex, ventral callus thin, expanded, pale bluish rose.

MOISSON, Journal de Conchyliologie, 1870, p. 201.

Hab. Viti and Marizo Islands.

Species 307. (Mus. Moisson.)

HELICINA SIMPUL. *Hel. testis solidâ, subdepressa, laevigata, pallidâ rubescens irregulariter flammis maculisque rubris rotundis; spira depressâ, apex obtuso, anfractibus convexis, ultimo anfractu medio lato, infusâ medianâ convexâ; calli ventrali tumidissimâ, alba; aperturâ depressâ, labio externo incrassatâ, rotundo.*

SIMPUL'S HELICINA. Shell solid, subdepressed, smooth, pale reddish, irregularly marked with red flames and spots; spire depressed, apex obtuse, last

whorl broad in the middle, rather convex below the middle; ventral callus rather tumid, white; aperture depressed, outer lip thickened, rounded

MOUSSON. *Journal de Conchyliologie*, 1870, p. 204, Pl. VIII, f. 8.

Hab. Oncata Island.

Species 308. (Fig. *a, b*, Mus. Græffe.)

HELICINA PAZI. *Hel. testâ parvâ, subglobosâ, pallidâ; fusâ; spirâ subpressâ, anfractibus paucis, apice obtuso; ultimo anfractu obtusissimè angulatâ; aperturâ subtrigonâ; labio externo reflexo, superne declivi, medio obscure angulatâ; callo ventrali crassiusculo, albescenti; margine recto, columellâ brevissimâ.*

PAZ'S HELICINA. Shell small, subglobose, pale brown; spire rather depressed, whorls few, apex obtuse; last whorl very obtusely angular; aperture sub-trigonal, outer lip reflected, sloped above, obscurely angular in the middle; ventral callus rather thick, whitish with straight margin; columella very short.

HILDAGO. *Journal de Conchyliologie*, 1865.

Hab. Gambier Islands.

Species 309. (Mus. Crosse? Copied.)

HELICINA ANXAENSIS. *Hel. testâ depressâ, parvâ, fuscâ-floridâ; spirâ depressâ, obtusâ, anfractibus paucis; ultimo anfractu depresso, lato, medio sub-*

angulatâ; aperturâ parvâ, semilunari, labio externo albo, incrassato; callo ventrali tumido, expanso; columellâ brevissimâ, crassâ.

THE ANXA HELICINA. Shell depressed, small, smoky yellow; spire depressed, obtuse, whorls few; last whorl depressed, broad, rather angular in the middle; aperture small, semilunar, outer lip white, thick, ventral callus tumid, expanded; columella very short, thick.

CROSSE. *Journal de Conchyliologie*, 1869, p. 67, Pl. V., f. 6.

Hab. Isl. Annaa, Pacific.

Species 310. (Mus. —? Copied.)

HELICINA FISCHERIANA. *Hel. testâ depressâ, angulatâ, carinatâ, lineis elevatis spirâlibus distinctibus, valdis striatâ; pallidè fuscâ; spirâ depressâ, conicâ; ultimo anfractu medio valdè carinato, infra carinam convexo, callo ventrali parvo, albo, aperturâ obliquè rhomboidâ, angustâ; labio externo reflexo, acuto; columellâ parvâ, rectiusculâ, angulatâ.*

FISCHER'S HELICINA. Shell depressed, angular, carinated, striated with raised spiral, strong lines; pale fawn; spire depressed, conical; last whorl strongly keeled in the middle, convex below the keel, ventral callus small, white; aperture obliquely rhomboidal, narrow; outer lip reflected, sharp; columella small, rather straight, angular.

MONTGOMERIE. *Journal de Conchyliologie*, 1863, p. 76, Pl. V., f. 3.

Hab. —?

HELICINA.

	Plate	Species		Plate	Species
<i>acuminata</i> — ?	VI.	14	<i>bulia</i> , Pfeiffer	XXX.	224
<i>acutissima</i> , <i>Sowerby</i>	XXXIII.	246	<i>Calceolae</i> , <i>Boisd</i>	XXXIV.	295
<i>Adamsiana</i> , Pfeiffer	III. IX.	23, 72	<i>calida</i> , <i>Waldland</i>	IX.	67
<i>adpersa</i> , Pfeiffer	X.	81	<i>callosa</i> , <i>Poey</i>	XV.	134
<i>affinis</i> , C. B. Adams	IV.	31	<i>capillaria</i> , Pfeiffer	XV.	136
<i>agglutinans</i> , <i>Sowerby</i>	XXV.	220	<i>carinata</i> , <i>Orbigny</i>	VII.	54
<i>alata</i> , <i>Muls</i>	XIII.	107	<i>cariniifera</i> , <i>Orbigny</i>	XXVII.	241
<i>albo-cincta</i> , <i>Hornbrieh</i>	XXIII.	204	<i>carocolla</i> , <i>Morison</i>	XXIV.	209
<i>albo-labris</i> , C. B. Adams	I.	6	<i>castanea</i> , <i>Gambosi</i> — ?	XXV.	226
<i>albo-labris</i> , <i>Hornbrieh</i>	XXIII.	197	<i>Catalpina</i> , Pfeiffer	II.	10
<i>alboviridis</i> , <i>Wright</i> — ?	XXIV.	214	<i>Chitappensis</i> , Pfeiffer	XIII.	110
<i>alta</i> , <i>Sowerby</i>	XVI.	142	<i>Clartiana</i> , Pfeiffer	XII.	99
<i>Ameliana</i> , De Rorsy	XXII.	119	<i>chrysochasma</i> , <i>Poey</i>	VIII.	64
<i>amona</i> , Pfeiffer	XX.	177	<i>chrysochola</i> , <i>Bonn</i>	XXXIII.	294
<i>ampliata</i> , C. B. Adams	X.	82	<i>chrystoma</i> , <i>Shottworth</i>	III.	19
<i>ampullata</i> , Ferrussac	IV.	30	<i>clibata</i> , <i>Poey</i>	II.	12
<i>Anabonica</i> , Benson	XXI.	187	<i>cinctilla</i> , <i>Shottworth</i>	XXI.	182
<i>angulata</i> , <i>Sowerby</i>	VII.	57	<i>cingulata</i> , <i>Gray</i>	XXXI.	277
<i>Ananensis</i> , <i>Crosse</i> (209 by error)	XXXIV.	308	<i>citrina</i> , <i>Grathnap</i>	XXV.	219
<i>Antillarum</i> , <i>Sowerby</i>	XX.	176	<i>citrina</i> , Pfeiffer	XXII.	199
<i>Antoni</i> , Pfeiffer	XIX.	165	<i>atrifidolabris</i> , C. B. Adams	I.	6
<i>arenicola</i> , <i>Morton</i>	XXVIII.	250	<i>caucinostoma</i> , <i>Morlet</i>	XX.	173
<i>articulata</i> , Pfeiffer	XXVI.	236	<i>colorata</i> , <i>Poey</i>	XXXIII.	298
<i>artiana</i> , Pfeiffer	XXXII.	239	<i>Columbiana</i> , <i>Philippi</i>	XXI.	139
<i>aurantia</i> , <i>Gray</i>	XX.	174	<i>columnellaris</i> , <i>Poey</i>	VI.	14
<i>aurantioviridis</i> , <i>Sowerby</i>	XI.	37	<i>concentrica</i> , Pfeiffer	VII.	54
<i>aureola</i> , <i>Ferrussac</i>	XIV.	124	<i>concinna</i> , <i>Gundlach</i>	XXXII.	284
<i>Basidiata</i> , <i>Poey</i>	VIII.	61	<i>conica</i> , Pfeiffer	XV.	133
<i>Bayhamensis</i> , <i>Poey</i>	II.	11	<i>conoides</i> , Pfeiffer	VI.	49
<i>Behaniana</i> , Pfeiffer	V.	37	<i>costaquinica</i> , C. B. Adams	I.	6
<i>bellula</i> , <i>Gundlach</i>	X.	83	<i>constellata</i> , <i>Morlet</i>	XXIV.	214
<i>benigna</i> , <i>Crosse</i>	XXXI.	279	<i>constricta</i> , Pfeiffer	XXXII.	292
<i>berylina</i> , <i>Gault</i>	XI.	91	<i>continua</i> , <i>Gundlach</i>	XVII.	146
<i>Boskii</i> , Pfeiffer	XXVII.	243	<i>convexa</i> , Pfeiffer	X.	84
<i>bicolor</i> , Pfeiffer	XXVII.	237	<i>Cordillere</i> , <i>Salt</i>	XVI.	143
<i>Blandiana</i> , <i>Gundlach</i>	VI.	44	<i>cornea</i> , <i>Sowerby</i>	XIX.	171
<i>Borneensis</i> , <i>Martens</i>	XXX.	267	<i>corutula</i> , <i>Shottworth</i>	IX.	76
<i>Brandii</i> , Pfeiffer	VIII.	63	<i>corrugata</i> , <i>Poey</i>	XXXII.	198
<i>Braziliana</i> , <i>Gray</i>	XXVI.	228	<i>costata</i> , <i>Gray</i>	XII.	106
<i>Brazilensis</i> , <i>Gray</i>	XI.	35	<i>crassa</i> , D'Orbigny	II.	15
<i>Brendleyi</i> , <i>Boisd</i>	XXX.	273	<i>crassicostata</i> , <i>Sowerby</i>	IV.	33
<i>brevilabris</i> , Pfeiffer	XXXIII.	296	<i>crassilabris</i> , <i>Philippo</i>	XII.	98
<i>Briarea</i> , <i>Poey</i>	II.	12	<i>Crossei</i> , <i>Semper</i> — ?	XXIII.	158
<i>Brownii</i> , <i>Gray</i>	II.	9	<i>culminans</i> , <i>Monsson</i>	XXXII.	287

HELICINA.

	Plate.	Species.		Plate.	Species.
Cunningii, Pfeiffer	VIII.	62	Hanleyana, Pfeiffer	XXX.	256
declivis, Guadluch	IX.	74	haemastoma, Mörchen	XXV.	217
denticulata, Pfeiffer	XVIII.	157	Heloise, Sallé	XIII.	111
depressa, Gray	XIV.	115	heliciniformis, Pfeiffer	XXXIII.	297
diphana, Pfeiffer	XXVIII.	251	hirsuta, C. B. Adams	II.	9
diatata, Poey	XII.	103	Hjalmarsoni, Pfeiffer	XXV.	223
dissimulans, Poey	I.	1	Hollaslii, C. B. Adams	II.	9
Draytonensis, Pfeiffer	XXX.	266	Hornbeckii, Philippi	V.	42
dubiosa, C. B. Adams	IV.	28	humilis, Hombright	XXIII.	205
Dysoni, Pfeiffer	XXIX.	258	Ide, Pfeiffer	XXII.	192
egregia, Pfeiffer	XVIII.	159	inequalis, Pfeiffer	XIV.	123
electrina, Pfeiffer	V.	36	inconspicua, Pfeiffer	XIX.	170
elegans, D'Orbigny	XV.	133	incrustata, Guadluch	IX.	70
elegantula, Pfeiffer	XV.	127	interna, Mousson	XXXIV.	306
elongata, D'Orbigny	XVI.	137	intusplicata, Pfeiffer	IV.	25
erythraea, Wright — ?	XXIV.	213	Jamaicensis, Sowerby	XIX.	163
excavata, Pfeiffer	III.	22	Japonica, A. Adams	XXX.	262
exacuta, Poey	VI.	48	Javaneti, Pfeiffer	I.	3
exserta, Guadluch	IV.	24	Josephina, C. B. Adams	XXIV.	210
fasciata, Lamarck	IX.	73	juvunda, Guadluch	XXV.	248
fasciata, Spix	XXI.	186	jugulata, Poey	VI.	47
festiva, Guadluch	VI.	46	Julii, Baird	XXX.	272
festiva, Gray	I.	4	Keati, Pfeiffer	X.	79
Fischeriana, Montandon	XXXIV.	310	Kieneri, Pfeiffer	XVIII.	160
flammea, Quoy	XXVI.	233	laciniosa, Mighels	IX.	69
flava, Spix	XXI.	186	leta, Crosse	XXXI.	278
flavescens, Poey	XXXIII.	299	Lamieriana, D'Orbigny	XXXIII.	301
flavida, Muls.	XVI.	145	lazarus, Sowerby	XXIV.	208
Forbesiana, Pfeiffer	XXVIII.	254	leis, Lea	XXXVII.	248
fossulata, Poey	II.	12	Lifonana, Crosse	XXXIV.	304
foveata, Pfeiffer	XXIX.	258	Lindleri, Pfeiffer	XIII.	112
Fraseri, Pfeiffer	XXXIII.	302	lineata, C. B. Adams	XIV.	116
fulvora, Gould	XXVI.	229	lirata, Pfeiffer	XIV.	121
fulva, Pfeiffer	XI.	89	littoralis, Guadluch	IV.	32
fumigata, Sowerby	XXXVIII.	252	littoriola, Guadluch	XV.	132
Funckii, Pfeiffer	XVII.	152	Lleana, Mousson	XXXI.	283
fuscula, Guadluch — ?	XXIV.	212	Lomisadensis, Fuchs	XXIX.	257
Güesbrightii, Pfeiffer	XXVII.	212	luteo-apicata, Poey	VIII.	60
glabra, Gould	IX.	68	lutea, Lesson	XXV.	232
globosa, Gray	III.	17	Maegillivrayi, Pfeiffer	XXII.	193
globulosa, Orbigny	XVIII.	154	maiculenta, C. B. Adams	I.	8
gonoclelia, Pfeiffer	XXIII.	201	maculata, Sowerby	XXVI.	227
Gossi, Pfeiffer	II.	11	maculosa, Newcombe	V.	50
Guadaluana, Pfeiffer	VIII.	60	major, Gray	II.	14
Guadaloupiensis, Sowerby	XX.	179	Maugeri, Gray	XXIII.	199
granum, Pfeiffer	XXV.	225	Morchoniana, Hombright	XXIII.	195
gratiosa, Pfeiffer	XII.	105	Mariei, Crosse	XXXIV.	305
gratulata, Blanford	XI.	96	maxima, Sowerby	III.	21
Gregano, Pfeiffer	XII.	105	negastoma, C. B. Adams	IV.	31
Guelbingiana, Pfeiffer	IX.	65	nerdigra, Sallé	XXI.	110
Guadluchi, Pfeiffer	XXXI.	282	Nepheusis, Pfeiffer	XXI.	187

HELICINA.

	Plate	Specim.		Plate	Specim.
impressina, <i>C. B. Adams</i>	I.	7	<i>picta</i> , Ferrussac	IX.	73
miltoheila, <i>Crosse</i>	XXXI.	275	<i>pietella</i> , <i>Pfiffer</i>	XXX.	268
minima, <i>Dorbigny</i>	V.	35	<i>pilosa</i> , <i>Sowerby</i>	XXXII.	203
minuta, <i>Sowerby</i>	XIX.	166	<i>pisma</i> , <i>Philippi</i>	X.	78
molosta, <i>Pfiffer</i>	XXIX.	259	<i>platycheila</i> , <i>Muhlebbt</i>	XI.	87
Mosquiana, <i>Rebecq</i>	XXVI.	231	<i>pluteola</i> , <i>Pfiffer</i>	XIV.	119
Morionis, <i>Crosse</i>	XXXI.	281	<i>Pocoy</i> , <i>Pfiffer</i>	X.	80
montana, <i>Wright</i>	XXXII.	291	<i>polita</i> , <i>Sowerby</i>	XXII.	189
Morionis, <i>Crosse</i>	XXXI.	281	<i>polluta</i> , <i>Pocoy</i>	IX.	66
Monthon, <i>Pfiffer</i>	XXVI.	230	<i>polychroma</i> , <i>Pfiffer</i>	XVII.	153
multicolor, <i>Gussak</i>	XIX.	172	<i>porphyrostoma</i> , <i>Crosse</i>	XXXI.	280
mutarescentia, <i>Boyer</i>	XXX.	271	<i>prulella</i> , <i>Gray</i>	XII.	103
<i>mutarescentia</i> , <i>Velisques</i>	V.	33	<i>puberriima</i> , <i>Lev</i>	II., III.	15
mutiva, <i>Gussak</i>	XXXII.	288	<i>purpurascens</i> , <i>Mordet</i>	XVII.	152
neritilla, <i>Levassor</i>	XX.	180	<i>pyramidalis</i> , <i>Sowerby</i>	VI.	45
Nehodora, <i>Shuttleworth</i>	XIII.	109	<i>parlostoma</i> , <i>Monk</i>	XX.	174
Nehodora, <i>Philippi</i>	XXI.	187	<i>Roviana</i> , <i>Pfiffer</i>	XXVI.	235
nitida, <i>Pfiffer</i>	IX.	68	<i>regina</i> , <i>Mordet</i>	V.	38
<i>nitida</i> , <i>C. B. Adams</i>	II.	11	<i>remota</i> , <i>Pocoy</i>	XVII.	148
Noche, <i>Gussak</i>	XI.	93	<i>rejmela</i> , <i>Pfiffer</i>	X.	86
Northfolensis, <i>Pfiffer</i>	XXI.	181	<i>reticulata</i> , <i>Pfiffer</i>	XXII.	188
notata, <i>Sillv</i>	XXXI.	275	<i>retorta</i> , <i>Pocoy</i>	V.	39
Novae-Caledoniae, <i>Boyer</i>	XXXIII.	295	<i>retulata</i> , <i>Wright</i>	XXIV.	213
ocellularis, <i>Gussak</i>	XXI.	183	<i>rigata</i> , <i>Pfiffer</i>	XXXII.	293
oculata, <i>Sowerby</i>	XXIX.	260	<i>rhamplostoma</i> , <i>Pfiffer</i>	III.	18
ocumica, <i>Gussak</i>	XXXII.	289	<i>rhodostoma</i> , <i>Gray</i>	VII.	53
ochracea, <i>Pocoy</i>	I.	5	<i>Rhori</i> , <i>Pfiffer</i>	XXXII.	195
obscura, <i>Pfiffer</i>	XXX.	270	<i>rhynchostoma</i> , <i>Shuttleworth</i>	XXXII.	240
opina, <i>Shuttleworth</i>	XII.	102	<i>Rosalie</i> , <i>Pfiffer</i>	XXXVII.	238
orbiculata, <i>Sowerby</i>	XXIX.	261	<i>rostrata</i> , <i>Mordet</i>	XVIII.	155
Orbigny, <i>Pfiffer</i>	XXXVIII.	253	<i>rotella</i> , <i>Sowerby</i>	XII.	104
oreolima, <i>Dorbigny</i>	V.	41	<i>rotifera</i> , <i>Potier et Michaud</i>	V.	42
<i>oreolima</i> ?, <i>Sowerby</i>	X.	81	<i>rotuloides</i> , <i>Morionis</i>	IX.	75
<i>oreolima</i> , <i>Pfiffer</i>	XX.	173	<i>rotunda</i> , <i>Dorbigny</i>	IV.	29
Owmania, <i>Pfiffer</i>	XVI.	114	<i>rubella</i> , <i>Pfiffer</i>	V.	34
oxylima, <i>Crosse</i>	XXXI.	282	<i>rubella</i> , <i>Wright</i>	XXIV.	213
<i>oxystoma</i> , <i>Sowerby</i>	XXIV.	207	<i>rubicunda</i> , <i>Gussak</i>	XV.	130
<i>oxytropis</i> , <i>Gray</i>	XXIV.	207	<i>rubra</i> , <i>Pfiffer</i>	I.	2
<i>papula</i> , <i>Velisques</i>	XXIV.	212	<i>rubromarginata</i> , <i>Gussak</i>	VIII.	59
<i>palliata</i> , <i>C. B. Adams</i>	I.	6	<i>rudis</i> , <i>Pfiffer</i>	XIX.	169
<i>pallida</i> , <i>Gussak</i>	XXXIII.	297	<i>rylia</i> , <i>Pfiffer</i>	XX.	179
<i>palmosa</i> , <i>Mordet</i> — ?	XII.	108	<i>rugosa</i> , <i>Pfiffer</i>	XIV.	120
<i>Paranisis</i> , <i>Pfiffer</i>	XVI.	141	<i>rugulosa</i> , <i>Pease</i>	XXXII.	285
<i>parva</i> , <i>Sowerby</i>	XXIV.	215	<i>rusticis</i> , <i>Pfiffer</i>	XV.	131
<i>parvula</i> , <i>Pease</i>	XXXII.	286	<i>Sagra</i> , <i>Orbigny</i>	I.	3
<i>Paiz</i> , <i>Hilbigo</i> (308 by error)	XXXIV.	309	<i>Sagraana</i> , <i>Orbigny</i>	I.	3
<i>pellucida</i> , <i>Sowerby</i>	XIII.	113	<i>Salliana</i> , <i>Pfiffer</i>	XXII.	190
<i>periplutea</i> , — ?	X.	83	<i>Salsini</i> , <i>Tristram</i>	XXVII.	155
<i>Petitiana</i> , <i>Orbigny</i>	XII.	100	<i>Sandwichensis</i> , <i>Sowlet</i>	XIX.	162
<i>petrosa</i> , <i>Gussak</i>	XV.	135	<i>sanguinea</i> , <i>Pfiffer</i>	XX.	178
<i>Plusioides</i> , <i>Pfiffer</i>	XXX.	270	<i>saturalis</i> , <i>Gussak</i>	X.	83

HELICINA.

	Plate.	Species.		Plate.	Species.
Schrammi, <i>Crosse</i>	XXXII.	290	tecta, <i>Sowerby</i>	XXVII.	244
scitula, <i>Wood</i>	XII.	103	tectiformis, <i>Moisson</i>	XXXIV.	303
scopularum, <i>Morlet</i>	VI.	43	tenuilabris, <i>Sowerby</i>	XI.	92
semilirata, <i>Pfeiffer</i>	XII.	107	Tilei, <i>Pfeiffer</i>	XI.	88
semistriata, <i>Sowerby</i>	XIV.	117	titanica, <i>Poey</i>	IV.	27
Seimper, <i>Moisson</i>	XXXIV.	307	tricarinata, <i>Sowerby</i>	XV.	129
Shanghaensis, <i>Pfeiffer</i>	XXXI.	234	tridens, <i>Shuttleworth</i>	XV.	125
silacea, <i>Morlet</i>	II.	13	trochiformis, <i>Sowerby</i>	VII.	52
similis, <i>Sowerby</i>	XX.	175	trochlea, <i>Gould</i>	XV.	128
simosa, <i>Pfeiffer</i>	III.	20	trochulina, <i>D'Orbigny</i>	XVI.	138
Sloani, <i>D'Orbigny</i>	VIII.	60	tropica, <i>Chemnitz</i>	XVII.	149
solidula, <i>Gray</i>	XXVII.	245	trossula, <i>Moricand</i>	XVI.	145
solitaria, <i>C. B. Adams</i>	IX.	65	turbinata, <i>Wagnan</i>	VIII.	63
sordida, <i>King</i>	XI.	94	turbinella, <i>Pfeiffer</i>	XVII.	150
Sowerbyana, <i>Pfeiffer</i>	XXIII.	202	uberta, <i>Gould</i>	XXIII.	196
spectabilis, <i>Gunthach</i>	XVII.	147	Ueana, <i>Moisson</i>	XXXI.	283
sphaeroida, <i>Pfeiffer</i>	X.	77	undulata, <i>Pfeiffer</i>	XV.	126
spinifera, <i>Pfeiffer</i>	VII.	55	unguiculata, <i>Poey</i>	V.	38
Sprucei, <i>Pfeiffer</i>	V.	40	unicarinata, <i>Sowerby</i>	XIX.	168
stellata, <i>Velasquez</i>	XXIV.	216	unicolor, <i>Potiez et Michaud</i>	XI.	87
Steninea, <i>Moricand</i>	VI.	48	undulata, <i>Pfeiffer</i>	XIV.	122
striata, <i>Lamarck</i>	XXII.	191	unifasciata, <i>Gray</i>	XXVIII.	249
striatula, <i>Sowerby</i>	IX.	71	variabilis, <i>Wagner</i>	XXI.	186
strigata, <i>Boisd</i>	XXX.	274	variegata, <i>Orbigny</i>	X.	81
suaavis, <i>Pfeiffer</i>	VII.	56	velutina, <i>Poey</i>	III.	16
subglobosa, <i>Poey</i>	XIX.	164	verecundia, — ?	XXVIII.	254
subconica, <i>Sowerby</i>	XXIX.	263	vernalis <i>Morlet</i>	XVIII.	156
subfusca, <i>Mexis</i>	V.	42	vestita, <i>Guilding</i>	XIX.	167
subfasciata, <i>Pfeiffer</i>	XXIX.	265	villosa, <i>Anthony</i> — ?	XXIII.	203
submarginata, <i>Gray</i>	I.	2	vinosa, <i>Shuttleworth</i>	XIV.	118
subovalis, <i>Sowerby</i>	XXI.	184	virens, <i>Pfeiffer</i>	XXII.	194
substriata, <i>Gray</i>	XI.	94	virginica, <i>Lea</i>	IV.	30
subturrata, <i>Sowerby</i>	VI.	50	viridis, <i>Lamarck</i>	XI.	90
succinea, <i>Pfeiffer</i>	IV.	26	viridis, <i>Sowerby</i>	XI.	97
supra-fasciata, <i>Sowerby</i>	XXXIII.	300	Yorkensis, <i>Pfeiffer</i>	XXIX.	264
suturalis, <i>Mutens</i>	VII.	58	Yunguensis, — ?	X.	83
tegnata, <i>Quoy</i>	X.	85	Zebriolata, <i>Pfeiffer</i>	XXVI.	229
Tausiana, <i>Pfeiffer</i>	XXIII.	161	zephyrina, <i>Duclos</i>	XVII.	149
Tankervillei, <i>Gray</i>	XII.	101	Zoa, <i>Pfeiffer</i>	XXI.	185
Tayloriana, <i>Sowerby</i>	XXIII.	206	Zonata, <i>Sowerby</i>	XXI.	186

ERRATA.

For *Annaeensis*, 309, and *Pazi*, 308, text, read *Annaeensis*, 308, and *Pazi*, 309.

- „ *miata*, Pl. XXVIII, sp. 255, „ *Opare*, *Sowerby*.
 „ *Proc*, Zool. Soc., 1842 (sp. 255) „ *Conchologica Iconica*, Pl. XXVIII.
 „ *pyramidata*, Pl. VI, sp. 15 (text) „ *pyramidalis*.

Species *Cordillera*, *globulosa*, and *laciniosa*, having been repeated, the following omitted species will take their numbers, viz.—*caudata*, *Orbigny*, sp. 114; *dentigera*, *Orbigny*, sp. 151; *oxystoma*, *Gray*, sp. 221.

MONOGRAPH

OF THE GENUS

PANOPÆA.

"Thy wondrous work, Thy boundless world I see,
Which yet faint shew'd on Thy *panopæa*."—*Trach.*



PANOPÆA.

PLATE I.

Genus PANOPÆA *Miurid.*

Testâ bivalvi, hincsaucosa, utriusque hians, lateribus, vel concentricè rugata, epidermide indurata, carchæ medio utriusque valvæ acubulata; ligamenta conspicienda, externa; impressio pallii posticæ perforatâ sinuata.

Shell bivalve, biniscular, gaping at both ends, smooth or concentrically wrinkled, covered with an epidermis, hinge with one tooth in the middle in each valve; ligament conspicuous, external; pallial impression with a deep sinus.

Some of the species included in this monograph are separated under the name *Glycymeris* in the work of Messrs. Adams. The shells of both genera are stated to be similar, excepting that in PANOPÆA the pallial impression is interrupted. The animals, however, differ in the two genera, the siphons being separated near the extremity in *Panopæa* and united to their extremity in *Glycymeris*. It would be impossible to decide absolutely on the validity of this distinction, which is probably one of degree, and therefore of specific value only, without being able to examine specimens of the siphonal integuments of every species. PANOPÆA, SPENGLER, i. *Norvegica* and its near ally *P. Mithylogyi* are quite northern in their range, reaching only the northernmost parts of Great Britain, while the other species included by Messrs. Adams in the

genus *Glycymeris* are tropical or southern, their range extending to South Australia.

Species I. (Mus. Brit.)

PANOPÆA ALBROVANDI. *Pau. testâ magna, altâ, sub-rhomboidâ, rectiusculâ, crassâ, profundâ; latere antiâ breviusculo, acuminatâ; peridliâ truncatâ; margine dorsali recto; medio plusculâ, umbonibus acutis; latere postico lato, ad terminum sub-arcuato, lat. truncatâ, margine dorsali convexâ.*

ALBROVANDI'S PANOPÆA. Shell large, elevated, sub-rhomboidal, rather straight, thick, deep; anterior side rather short, acuminate; very obliquely truncate; dorsal margin straight; middle rather flat, umbones oval; posterior side broad, a little arched at the end, broadly truncate, dorsal margin convex.

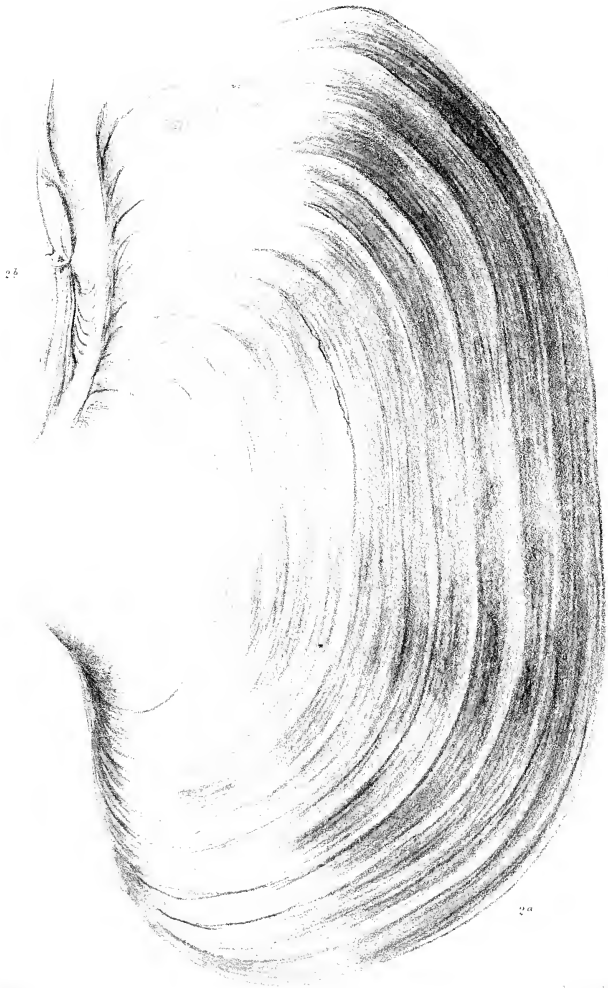
LIVARCK. *Ann. Mus. Vert.*

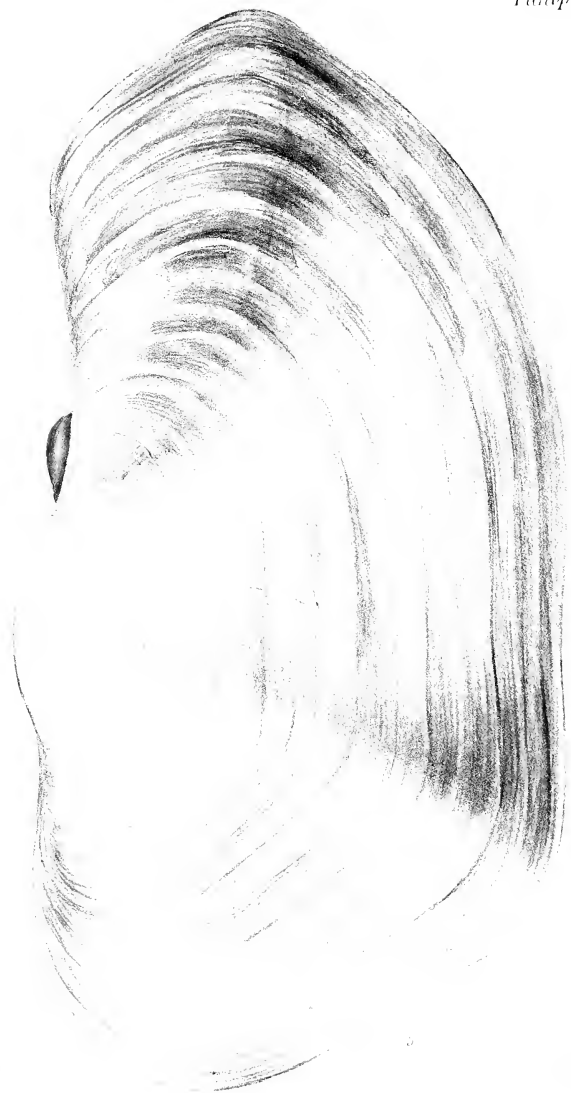
Panopæa glycymeris, Deshayes.

Panopæa rugosa, Valenciennes.

Hob. Mediterranean.

The three large species of this genus are thus distinguished, namely, *Panopæa Albrovandi* is broad and deep, short and obliquely truncate in front; *Panopæa Finlayi* is narrower, nearly equilateral, and not at all oblique; *Panopæa atrovandæ* is narrow, long, and curved posteriorly, broad and reflected anteriorly.





PANOPEA.

PLATE III.

SPECIES 3. (Mus. Paris.)

FIGURE 1. PANOPAEA. *Pan.* testis elongatus, ovato, subquadrato, latero-antero-lateralibus, immixto marginibus dorsali elevatis, medio compressis, marginibus parvis parvisque, immixtis, et latero-rectis, latero-posterioribus attenuatis, ad terminum angustis, cetero sursum arcuatis, tenuem obliquam, leviter, marginibus dorsali depressa arcuata.

FIGURE 2. EDMOND DE PASCALEY. Shell elongated, ovate, quadrato; anterior side wider, obliquely truncate, dorsal margin elevated; middle compressed, margins little prominent; ventral margin straight; posterior side attenuated, arched at the end, strongly sloped upwards, end obliquely truncated, dorsal margin depressed, arched.

SOEWERY.

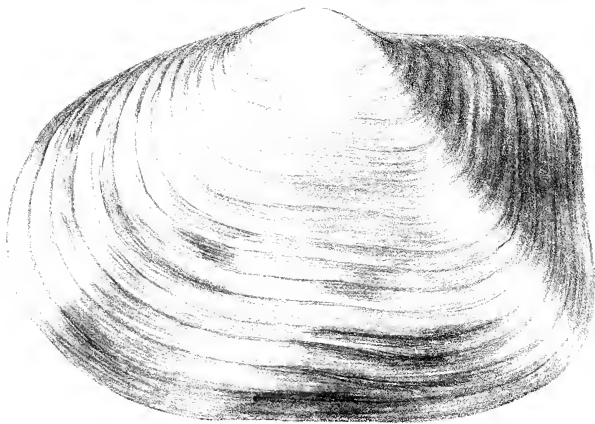
Panopea Australis, Valenciennes, not Sowerby.
Hab. Port Natal.

We have no reason to suppose that this shell is identical with the *P. australis* of Sowerby, or that the one represented in Plate VI. of this monograph, M. Valenciennes having received a drawing of a smaller specimen in the Cumingian Cabinet by Mr. Sowerby, imagined it to represent the young of his gigantic species: an opinion which we cannot share. *Panopea attenuata* differs from the two preceding species in shape and proportions, as will be seen from the figure which we have copied.

February, 1873.



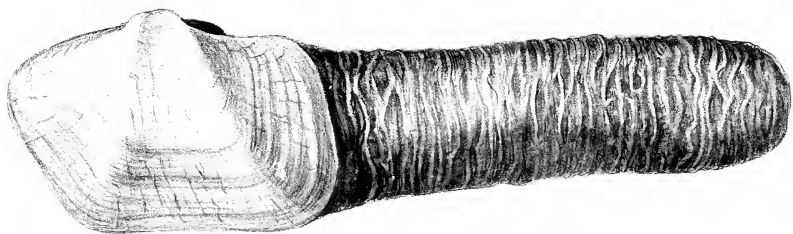
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7

PANOPÆA.

PLATE V.

Species 6. (Mus. Brit.)

PANOPÆA SPUNGLERII. *Pan. testâ oblongâ, testâ scabâ, antice latiore, concentricè rugata, truncatâ, medio angustata; latere posteriore angustiusculo, elongato, subangulato, truncato, medio planiusculo; latere antice brevi, latere postice.*

SOLANUS'S PANOPÆA. Shell oblong, rather straight, solid, slightly concentrically wrinkled, ineptilacinal; posterior side rather narrow, elongated, rather angular, truncated, rather flat in the middle; anterior side short, wide, rounded.

GRAY, MS. Chem. Illus. Conch. pl. 11, f. 2 a.

Hab. New Zealand.

Species 7. (Mus. Jeffreys.)

PANOPÆA SPUNGLERII. *Pan. testâ crassâ, oblongo-subquadrata, subrugosa, epidermide fusco-subviridi coloratâ; latere postice radiatum angulato, ad terminum truncato, medio depresso, complanato; latere antice brevi, subrotundo, subrugato; umbones subquadratos, medio depressis.*

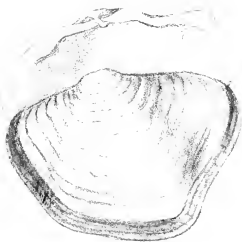
SPUNGLER'S PANOPÆA. Shell thick, oblong-subquadrate, subrugose, covered with a greenish-brown epidermis; posterior side radiately angular, truncated at the end, depressed in the middle, flattened; anterior side short, rather round, rather rough; umbones squarish, depressed in the middle.

VALENGIENIS. Arch. Mus. Ul. pl. 5, fig. 3, a, b.

Panopæa Norvegica, Sowerby.

Hab. Norway, North of Scotland.

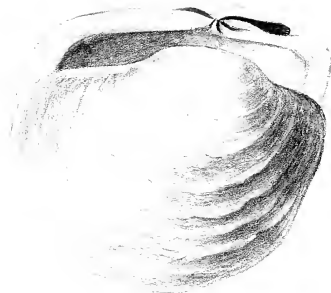
February, 1873.



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PANOPÆA.

PLATE VI.

Species 8. (Mus. Brit.)

PANOPÆA MIDDELBOETH. *Pan. testâ subtriangulâ, angulâ, concentricè sublaminatâ, versûs umbones concentricè lœviter rugatâ, epidermidè fusco-subviridè indatâ, utrinquè hiânti; latere antico brevi, concavo, margine dorsali subdeclivi, margine costali declivi; medio planulatâ, margine ventrali recto; latere postico expanso, subangulatâ, margine dorsali elevato, margine latero-ventrali subconvexo, sursim acclivi.*

MIDDELBOETH'S PANOPÆA. Shell subtriangular, angular, concentrically laminated, concentrically slightly wrinkled towards the umbones, covered with a greenish-brown epidermis, gaping on both sides; anterior side short, cuneate, dorsal margin rather sloped, ventral margin sloped upwards; middle rather flat, ventral margin straight; posterior side expanded, rather angular, dorsal margin elevated, latero-ventral margin rather truncated, sloped upwards.

A. AVAMS. Proc. Zool. Soc., 1854, p. 137.

Hab. Scandinavia.

Possibly this may prove to be but a somewhat triangular form of *Panopæa sphenoliri*.

Species 9. (Mus. Brit.)

PANOPÆA ZELANDICA. *Pan. testâ oblongo-subrhomboidâ, pallidè fulvâ, concentricè rugatâ, utrinquè truncato, hiânti; latere antico brevissimo, rotundatum angulatâ; medio latè subplanulatâ, umbonibus oratis; latere postico oblongo, margine terminali truncato.*

THE NEW ZEALAND PANOPÆA. Shell oblong-subrhomboidal, pale fulvous, concentrically wrinkled, truncated and gaping at each end; anterior side rather short, roundly angular, middle widely

rather flattened, umbones ovate; posterior side oblong; terminal margin truncated.

Quoy. Voy. de l'Astrolabe, pl. 83, f. 7—9.

Hab. Moreton Bay.

Species 10. (Mus. Paris.)

PANOPÆA ABBREVIATA. *Pan. testâ rugosâ, laminatâ, crassâ, rotundatum ovatâ; latere antico brevi, parvo, margine dorsali depresso, margine ventrali acclivi, subsimato; medio convexo, umbonibus latis, margine ventrali rotundato; latere postico subelongato, margine dorsali rectiusculo, brachio subconvexo, margine ventrali rotundato, versûs terminum acclivi; margine cardinali incrassato.*

THE SHORTENED PANOPÆA. Shell rough, laminated, thick, roundly ovate; anterior side short, small, dorsal margin depressed, ventral margin sloped upwards, somewhat sinuous; middle convex, umbones wide, ventral margin round; posterior side rather elongated, dorsal margin rather straight, end rather cuneate, ventral margin rounded, sloped upwards towards the end; hinge margin thick.

VALESCHENNES. Illustrations Conchyliologiques, Pl. IX.

f. 1, a, b.

Panopæa antarctica, Gould.

Hab. Coast of Patagonia.

Species 11. (Mus. Brit.)

PANOPÆA AUSTRALIS. *Pan. testâ tenuisculâ albâ, utrinquè latissimè hiânti, concentricè rugatâ, valdè inæquilaterali; latere antico latissimo, reflexo, margine dorsali elevato, convexo; medio compresso, margine ventrali convexo, umbonibus acuminatis; latere postico angustiori, oblongo, truncato, margine dorsali depresso.*

April, 1873.

PANOPEA.—PLATE VI

THE AUSTRALIAN PANOPEA. Shell rather thin, white, very widely gaping on both sides, concentrically wrinkled, very inequilateral; anterior side very wide, reflected, dorsal margin elevated, convex; middle compressed, ventral margin concave, umbones acuminated; posterior side narrower, oblong, truncated, dorsal margin depressed.

SOWBEY. Genera of Shells, No. 40

Hab. Tasmania

Several specimens of this species exist in the collection of the British Museum, and although rather light and thin, appear to be adult. A drawing of one of these was sent to M. Valenciennes, who considered it to represent the young state of the large shell which he has figured in the "Illustrations Conchyliologiques," and which, in our plate, three of this genus is named *Panopea attenuata*.

MONOGRAPH
OF THE GENUS
S C A L A R I A.

"A ladder, quaintly made!" *Shakspeare*



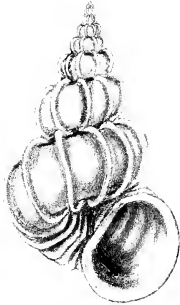
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SCALARIA.

PLATE I.

Genus SCALARIA, *Lamarck*.

Testa turrita, frequentiter alba, lutescens, angustibus rotundis, frequentiter separatis; costis varicosis, plus minusve regularibus armatis; apertura obliqua, marginibus reflexis, rotundo. Operculum corneum, parvaspirale.

Shell turritid, frequently white, smooth, whorls rounded, frequently separated; ornamented with more or less varicose ribs; aperture oblique, margin reflected, rounded. Operculum horny, with few whorls.

The system of regular varicos ribs continued from whorl to whorl in a half-spiral direction up to the apex, the separation of the whorls in some instances, the delicate colouring in others, and the exquisite sculpture of many species, combine to render this one of the most attractive of genera. The geographical distribution of the genus is world wide, and many individual species have a very wide range indeed. China and the Philippine Islands produce a large number, and a few are found in Great Britain and more northern localities.

Species 1. (Mus. Nobis.)

SCALARIA NEGLECTA. *Seg. testâ latè pyramidatâ, perforatâ, inter varices pallidè fulcâ; angustibus rapidè crescentibus, distinctis; varicibus sub-nervosis, lamellosis, continuis, prope suturam acutatis.*

THE NEGLECTED SCALARIA. Shell broadly pyramidal, perforated, pale fivous between the varices; whorls rapidly increasing, distinct; varices rather numerous, rather thin, continuous, aculeated near the suture.

ADAMS & REEVE. Voy. Samarang. Zool., p. 31, pl. 11, f. 15.

Scalaia Pallasi, var. Sowerby Thes. Conch.
Hab. China.

Scalaia Pallasi is a narrow shell with proportionally larger and more distant ribs. The difference between the two species is well maintained in all the specimens.

Species 2. (Mus. Brit.)

SCALARIA GRADATA. *Seg. testâ elongatè pyramidatâ, costis rotundis, albis; angustibus contiguis, latè crescentibus; costis raris continuis, lamellosis, prope suturam quadratis, subacutatis.*

THE SLEIGHT SCALARIA. Shell elongate, pyramidal, elevated, acuminated, white; whorls continuing, slowly increasing; ribs scarcely contiguous, rather thin, square near the suture, slightly aculeated.

HEDD. *Fal. Sowb. Thes., Pl. XXXIV, fig. 109.*

Scalaia moloss, Carpenter.
Hab. Amboyna.

This very characteristic shell appears in the British Museum under the name *moloss*, Carp.

Species 3. (Mus. Nobis.)

SCALARIA AUSTRALIS. *Seg. testâ elongatâ, crassâ, obtusèscantibus, inter varices griseocentâ, angustibus latè crescentibus, contiguis, subcompressis, infâ costâ obtusâ, crassâ distinctis; varicibus crassis, subdistinctibus, retusèscantibus, continuis.*

THE AUSTRALIAN SCALARIA. Shell elongated, thick, rather obtuse, greyish between the varices; whorls slowly increasing, contiguous somewhat compressed, encircled below with an obtuse thick keel; varices thick, rather distant, rather straight, continuous.

LAMARCK. Anim. s. vert. Sowb. Thes. Conch., f. 62.
Hab. Swan River, Australia. Cape of Good Hope.

SCALARIA.—PLATE I.

Species 4. (Mus. Nobis.)

SCALARIA PETHOSA. *Sea. testâ magnâ, ventricosâ, latè perforatâ, inter varices pallidè fulco-purpureascenti; anfractibus rapidè crescentibus, rotundis, separatis; varicibus distantibus, luminatis, prominente crenatis, vic crenulatis; aperturâ magnâ, intus fusca; columellâ infra reflectâ, incrassatâ.*

THE PECUOS SCALARIA. Shell large, ventricose, broadly perforated, pale fulvous-purple between the varices; whorls rapidly increasing, rounded, separated; varices distant, luminar, prominently outstanding, scarcely crenulated; aperture large, brown within; columella reflected below, thickened.

LAMARCK. Anim. sans vert.

Turbo Sclaris, Linæus.

Hab. China. Australia. Molluccas.

The above name being the one by which this beautiful shell is popularly known, it is preferred to the old specific name, now used generically.

Species 5. (Mus. Brit.)

SCALARIA COMMUNIS. *Sea. testâ elongatâ, imperforatâ, purpureo fuscoque inter varices variegatâ, super varices radiatim maculatâ, anfractibus numerosis, lentissimè crescentibus, contiguis; varicibus in-*

æqualibus flexuosis, subextantibus, ad suturam devotis, junctis, continuis.

THE COMMON SCALARIA. Shell elongated, imperforate, variegated between the varices, radiately spotted on the varices with purple and brown; whorls numerous, very slowly increased, contiguous; varices unequal, flexuous, rather extant, raised, joined, continuous.

LAMARCK. Anim. sans vert.

Turbo clausurus, Gmel.

Hab. Great Britain. Scandinavia. Mediterranean.

Species 6. (Mus. Brit.)

SCALARIA IMPERIALIS. *Sea. testâ latè pyramidatâ, perforatâ, ventricosâ, tenuissimâ; anfractibus paucis, rapidè crescentibus, inter varices purpureo-fuscis; varicibus numerosis, regularibus, subrotundis; interstitiis angustis.*

THE IMPERIAL SCALARIA. Shell broadly pyramidal, perforated, ventricose, rather thin; whorls few, rapidly increasing, purple-brown between the varices; varices numerous, regular, rather rounded; interstices narrow.

SHOWERY. Proc. Zool. Soc., 1844.

Hab. Mozambique. Swan River, Australia.

The bright clear colour of the interstices between the close white ribs, give a peculiar charm to this shell.



SCALARIA.

PLATE II.

SPECIES 7. (Fitz. & G. Mus. Brit.)

SCALARIA TULLONIS. *Sea, testâ leve, pallide purpureâ, varicosis interruptis, mucillisque purpureis et longis carinatis, imperforatis, elongatis; anfractibus contiguos numerosis, paulo convexis; varicibus inaequalibus, planiusculis, deambulatis; ad suturam paulo elevatis; apertura subovata, labio interno crasso, rotundo.*

TULLON'S SCALARIA. Shell smooth, banded, pale purple, variegated with interrupted bands and spots of purple or brown, imperforate, elongated; whorls contiguous, numerous, a little convex; varices unequal, rather flat, de-convexed, a little elevated at the suture; aperture subovate, inner lip thick, rounded.

Risso — Savigny's Thesaurus, *Scalaria*, fig. 89, 106, 7, 8.

Scalaria planicostata, Bayon.

Hab. Coasts of Great Britain, and Mediterranean.

The whorls are closer and less convex, and the ribs flatter than in *Scalaria tullonis*. Besides the British and Mediterranean varieties, there is a rather doubtful one of dark colour found in the Philippines.

SPECIES 8. (Mus. Brit.)

SCALARIA BELLATA. *Sea, testâ albâ, brevi, lani, ventricosissimâ; anfractibus paucis, rotundatis; varicibus tenuibus, inaequalibus, obliquis, ad suturam elevatis; apertura oviformi, subconiformi, columella sub-*

THE BUBBLE-SHAPE D SCALARIA. Shell white, short, broad, very ventricose; whorls few, rounded; varices thin, very oblique, elevated at the suture; aperture large; umbilicus small.

SOWLEBY, Thesaurus Conchyliorum, *Scalaria*, Sp. 45, fig. 87.

Hab. Isl. Cépul, Philippines; on coral-reefs.

SPECIES 9. (Mus. Brit.)

SCALARIA BARICOSTATA. *Sea, testâ albâ, crassâ, cancellatâ, pyramidalâ, ventricosâ; anfractibus convexis, distinctis, rapidè crescentibus; varicibus paucis, inaequaliter distantibus, rotundatis, cancellatis, crassis, apertura majusculâ, labio interno antice subapertis, umbilico minuto.*

THE BARK-LINED SCALARIA. Shell white, thick, cancellated, pyramidal, ventricose; whorls convex, distinct, rapidly increasing; varices very few, unequally distant, rounded, crenulated, thick; aperture rather large; inner lip anteriorly slightly expanded; umbilicus very small.

LAMARCK, Animaux sans Vert., *Soub.* Thes., fig. 79, 80, *Hab.* Ceylon.

SPECIES 10. (Mus. Græner, Brit. &c.)

SCALARIA MAGNETICA. *Sea, testâ magis elongatâ, pyramidalâ, albâ, anfractibus numerosis, lani crescentibus, rotundatis, distinctis; costis spirales calidis striisque concentricis interstitialibus cancellatis; varicibus ad anfractus superiores nullis, ad anfractus ultimos raris, arcuatis, inaequalibus; apertura subconiformi, columella sub-*

THE MAGNETIC SCALARIA. Shell large, elongated, pyramidal, white, whorls numerous, slowly increasing, rounded, distinct; cancellated with strong spiral ribs and concentric interstitial striae; varices on the upper whorls none, on the last whorls few, arched, inequidistant; aperture partly auriform, columella somewhat tortuous.

SOWLEBY, Thesaurus Conchyliorum, Sp. 78, fig. 103.

Turbo principalis, Chemnitz, not Pallas.

Hab. China?

The specimens in the British Museum have not attained the stage of growth at which the varices begin to appear at all numerously.

April, 1873.

SCALARIA.—PLATE II.

Species 11. (Fig. a, b, Mus. Brit.)

SCALARIA VARICOSEA. *Sea, testâ albâ, crassâ, rugis nodulosis cancellatâ; anfractibus distinctis, ultimo infra spiralem carinato; sutura profundâ, frequenter lamina extantibus interruptâ; varicibus rarissimis, crassis, crenulatis; aperturâ rotundâ, labio interno supra et infra expanso, v. g. c.*

THE VARICOSE SCALARIA. Shell white, thick, cancellated with nodulous wrinkles; whorls distinct, the last spirally keeled below; suture deep, frequently interrupted with outstanding laminae; varices very rare, thick, crenulated; aperture rounded, inner lip expanded and reflected above and beneath.

LAMARCK. Animaux sans Vertèbres.

Scalaria fimbriata, Lamk. Enc. Met.

Hab. Isl. Capul, Luzon, &c., Philippines



SCALARIA.

PLATE III.

FIGS. 12, 13, 14.

SCALARIA FASCIATA. *Scala testæ albæ, costis, caespitibus — costibus rubris, interstitiis concoloribus, et inter-submarginatis, lamellis, et suturis perispiralibus, in costis distinctis.*

THE BANDA SCALARIA. Shell white, banded, imbricated; whorls rounded, somewhat contiguous; varices rather distant, lamellæ raised into an acuminate angle; aperture subovate.

PALLAS. — *Mus. Soc.*

Scala fasciata, Keiser.

Hab. Nipivappi, West Columbia, *Columbæ*, Columbia, *U. S. pater*.

The figure given by Pallas and copied by MERTON is apparently that of a larger shell than the specimen figured in SOWERBY'S THESAUROS; but in other respects the characters agree.

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

SCALARIA FANCIATA. *Scala testæ albæ, inter varices spatulæ fere nulla cili, perispiralibus; anfractibus a tumulis, et costibus; varicibus aquilistantibus, laminatis, ciliatis, prope suturam in angulum acuminatum declatis; apertura subovata, labio externo ad suturam excavata, tum appropinquatum acuminato.*

THE BANDA SCALARIA. Shell white, spirally single-banded with brown between the varices, pyramidal; whorls rounded, hardly touching; varices equidistant, laminated, ciliated, raised into an acuminate angle; aperture subovate, outer lip excavated at the suture, then acuminate approximately.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., Sp. 4, fig. 12, 13.

Hab. Isl. Luzon, Philippines.

This species differs from *Scalaia alata* in being

narrower, and in the shape of the varices and margin of the aperture. In each species there is an angle on the varix, but in *Scalaia fasciata* it is much more pointed and elevated than in *Scalaia alata*, and leans towards the whorl.

Species 14. (Mus. Brit.)

SCALARIA ANGULATA. *Scala testæ subcylindrico, albâ, obtusâ; anfractibus separatis, ovatis; varicibus substantibus, crassis, prope suturam obtusâ angulatis; apertura subovata.*

THE ANGULAR SCALARIA. Shell subcylindrical, white, obtuse; whorls separated, ovate; varices rather distant, thick, obtusely angular near the suture, aperture subovate.

SAY. Boston American Journal.

Scalaia Humphreysiana, Keiser.

Hab. North America.

Species 15. (Mus. Brit.)

SCALARIA ALATA. *Scala testæ albâ, inter varices medio anfractum latè anfractibus, pyramidalibus; anfractibus separatis; varicibus laminatis, latè, distantibus, ciliatis, superius expansis, angulatis; apertura subovata, marginè labii externi ad suturam declati, tum in aliam angulatum distanter expanso.*

THE WINGED SCALARIA. Shell white, broadly single-banded in the middle of the whorls between the varices, pyramidal; whorls separate; varices laminated, broad, distant, standing out, expanded above, angular; aperture subovate, margin of the outer lip sloped at the suture, then expanded in a distant angle.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Isl. Luzon, Philippines.

Instead of the elevated point sloped towards the suture which is seen in *Scalaia fasciata*, the present

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SCALARIA.—PLATE III.

species has at the upper part of each varix an angular expansion sloped outwards.

Species 16. (Mus. Brit.)

SCALARIA MAJORATA. *Sea, testâ pyramidalâ, lœvi, pullulâ, inter varices, mucosâ, fuscâque interrupte maculatâ; varices laminatis, angustis, truncatis, superioribus angulatis, ad suturam declivis.*

THE MARBLED SCALARIA. Shell pyramidal, smooth, pale, marbled between the varices with spots and interrupted bands; varices laminated, narrow, thin, obtusely angular above, sloped at the suture.

SWEDIA, Proc. Zool. Soc., 1844. Thes. Conch., Sp. 5, fig. 9.

Hab. India.

Distinguished from *Scalaria alata* and *Sc. juncata* by the marbled markings, and by the narrow and obtusely angular whorls.

Species 17. (Mus. Brit.)

SCALARIA PYRAMIDALIS. *Sea, testâ albâ, pyrâmidatâ, subventricosâ; anfractibus distinctis, varices sublaminitis, etantibus, post. suturam in angulum acutum productis; aperturâ subrotundâ, labio interno intus ciliato, emutato.*

THE PYRAMIDAL SCALARIA. Shell white, pyramidal, subventricose; whorls distinct; varices somewhat laminated, extant, produced into an acute angle near the suture; aperture rather rounded, inner lip anteriorly plicated, emuate.

SWEDIA, Proc. Zool. Soc., 1844. Thes. Conch., Sp. 9, fig. 4.

Hab. Philippines.

Species 18. (Mus. Brit.)

SCALARIA STATUINALA. *Sea, testâ albâ, inter varices carabâ, lœvi, crassâ, imperfectâ; anfractibus declivibus, contiguâ, anticè curvatis; varices crassâ, prominentibus, obliquè continis, propè suturam in angulum elevatum expansis.*

THE BUTTERFLEED SCALARIA. Shell white, bluish between the varices, short, thick, imperforate; whorls sloped, contiguous, anteriorly carinated; varices thick, prominent, obliquely continuous, expanded in a raised angle near the suture.

SWEDIA, Proc. Zool. Soc., 1844. Thes. Conch., Sp. 77, fig. 127.

Hab. Hayti, Peru.

A very singular little shell.

Species 19. (Mus. Brit.)

SCALARIA CILATA. *Sea, testâ pyramidalâ, imperfectâ, pullulâ fuscâ, minutissimè granulatâ; anfractibus contiguâ, superioribus angulatis et creantibus, infâ sulcâ foveolâ et curvâ erantibus unguatis.*

THE CRENTLED SCALARIA. Shell pyramidal, imperforate, pale-brown, very minutely granulated; whorls contiguous, angulated and cremented above at the suture, bordered below by a pitted groove and cremented keel.

LINNEUS, (Turbo) Systema Naturæ.

Hab. Portugal, West Indies.

Species 20. (Mus. Brit.)

SCALARIA MARTINI. *Sea, elevatâ, albâ, spirallè striatâ; anfractibus mucosis, rotundatis, contiguâ; varices irregularis, rotundatis, erantibus, supra medium latè arcuatis; aperturâ subrotundâ.*

MARTINI'S SCALARIA. Shell elevated, white, spirally striated; whorls numerous, rounded, contiguous; varices very few, rounded, cremented, slightly curved above the middle; aperture a little auriform.

WOOD, Index Testaceologicus.

Scalaria striata, Keimr.

Scalaria ruficostata, (Pars.) Lamarek.

Hab. West Indies.

Resembles *Scalaria ruficostata* in the rarity of the varices, but is of a more elevated and graceful form.



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SCALARIA.

PLATE IV.

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

SCALARIA PHILIPPINARUM. *Stm. testis umbilicis, parvis addatis, inter varicosas fulvâ et ciliâ spirali, sicut in albo, anfractibus invarios, rotundatis, varicosis albis, distantibus, spera' et umbilicibus, et testis parvis, rotundatis.*

THE PHILIPPINE SCALARIA. Shell more or less pyramidal, fulvous or chestnut between the varicos, or entirely white; whorls numerous, rounded; varicos white, distant, very slightly angular above; aperture small, rounded.

SOEWERY, Proc. Zool. Soc., 1844.

Hab. Philippines and Amboyna.

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

SCALARIA OPIKA. *Stm. testis b. et. lora, ventricosa, et lobi, anfractibus parvis, rotundatis, ciliâ spirali, ultimo anfractu ventricoso, rotundatis, varicosis, et umbilicibus; apertura sub ovata, ciliâ spirali, et fulva.*

THE OPIKA SCALARIA. Shell short, broad, ventricose, whitish, whorls few, rounded, contiguous; last whorl ventricose, varicos numerous, thick, rounded; aperture sub-ovate, margin fulvous.

SOEWERY, The saurus Cenchylorium, No. 1. Salaria, Sp. 25, fig. 70, 71.

Hab. Australia.

A very stout, short little species.

Species 23. (Mus. Brit.)

SCALARIA LYRA. *Stm. testis ventricosa, b. et. ciliâ, pallidâ fulvâ, spirali et fulva b. et. ciliâ, varicosis angustissimis lamellis ciliâ b. et. ciliâ, anfractibus rotundatis contiguis; apertura angustiora.*

THE LYRA SCALARIA. Shell ventricose, rather short, pale-fulvous, spirally double-banded with fawn-colour, very closely ridged with very narrow laminae varicos, whorls rounded, contiguous; aperture auriform.

SOEWERY, The saurus Cenchylorium, No. 4. Salaria, Sp. 27, fig. 81, 82.

Hab. Isl. Masbate, Philippines; H. Cuming

Species 24. (Mus. Brit.)

SCALARIA IMMOLATA. *Stm. testis albi, elongati, umbilicatis, spirali et ciliâ, anfractibus rotundatis, ciliâ, ad suturam crassatis; varicos tenuissimis, inaequalibus, medio anfractuum crassatis apertura ovata.*

THE IMMOLATA SCALARIA. Shell white, elongated, subumbilicated, spirally striated; whorls rounded, contiguous, crumpled at the suture; varicos very thin, unequal, disappearing in the middle of the whorls; aperture ovate.

SOEWERY, Zool. Proc. Thes. Conch., Sp. 39, fig. 58.

Hab. Cataman, Isl. Luzon, Philippines.

Species 25. (Mus. Brit.)

SCALARIA CRASSA. *Stm. testis pyramidalis, albi, irregulariter tenuissimis ciliâ, subumbilicatis; anfractibus rotundatis, lobi ciliâ; apertura sub-ovata, lobi interna antice paulo expansa, emicata.*

THE THICK SCALARIA. Shell pyramidal, white, irregularly very finely varicose, slightly umbilicated; whorls rounded, slowly increasing; aperture rather oval, inner lip anteriorly a little expanded, emicate.

SOEWERY, Proc. Zool. Soc., 1844. Thes. Conch., t. 55.

Hab. Philippines.

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SCALARIA.—PLATE IV.

Species 26. (Mus. Brit.)

SCALARIA IRREGULARIS. *Sea, testâ albâ, tenui, umbilicatâ, pyramidatâ; anfractibus rotundatis, contiguïs; varicibus tenuissimis, numerosis, irregularibus, ad suturam minutè ciliatis; labio interno obliquo.*

THE IRREGULAR SCALARIA. Shell white, thin, umbilicated, pyramidal; whorls rounded, contiguous; varices very thin, numerous, irregular, minutely standing out at the suture; inner lip oblique.

SOWBRY, Proc. Zool. Soc., 1844.

Hab. Cataman, Isl. Luzon, Philippines.

Species 27. (Mus. Brit.)

SCALARIA HEXAGONA. *Sea, testâ parvâ, pyramidatâ, albâ, imperforatâ; anfractibus paucis, contiguïs; varicibus parvis, oblique continuis, crassis, distantibus; aperturâ rotundatâ.*

THE HEXAGONAL SCALARIA. Shell small, pyramidal, white, imperforate; whorls few, contiguous; varices

few, obliquely continued, thick, distant; aperture rounded.

SOWBRY, Proc. Zool. Soc., 1844.

Hab. Acapulca.

Species 28. (Mus. Brit.)

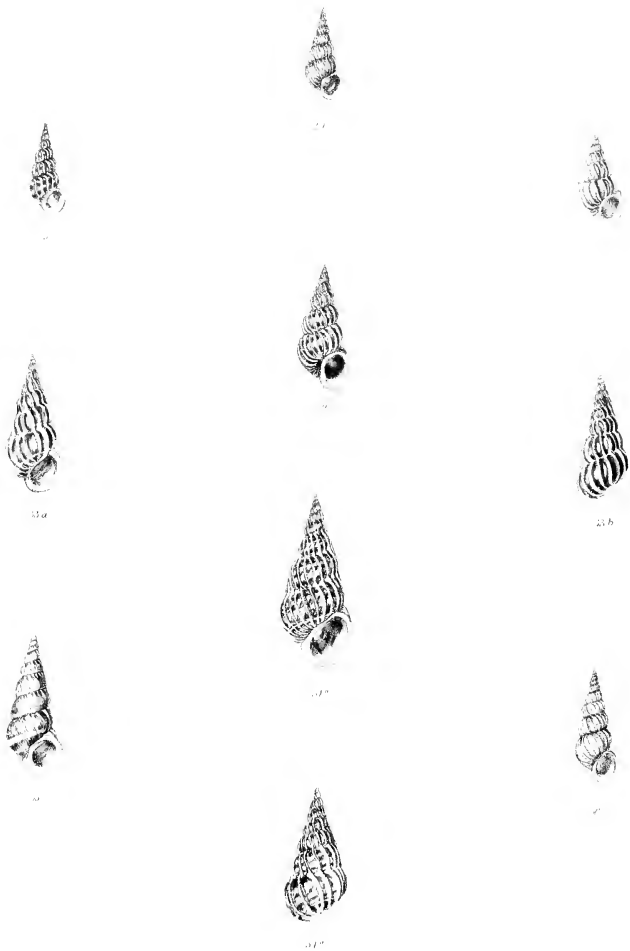
SCALARIA UNIFASCIATA. *Sea, testâ parvâ, albâ, imperforatâ, angustâ; anfractibus ad suturam inter varices fusco unifasciatis; varicibus paucis, erectis, ciliatis, super anfractus continuis; aperturâ parvâ, rotundatâ.*

THE SINGLE-BANDED SCALARIA. Shell small, white, imperforate, narrow; whorls single-banded with brown at the suture between the varices; varices few, rather straight, continuous upon the whorls; aperture small, rounded.

SOWBRY, Proc. Zool. Soc., 1844.

Hab. West Indies.

This pretty little species is distinguished by a narrow brown band between the varices at the upper part of the whorls.



SCALARIA.

PLATE V.

Species 29. (Mus. Brit.)

SCALARIA TROCHILIS. *Sea, testâ testâ, ovata, albâ, (aperturâ), costâribus numerosis, contiguâ; varicosis uniauricularibus, tenuibus, bisantibus, erectantibus, ad suturam continuâ; aperturâ subovata.*

THE TROCHIL SCALARIA. Shell thin, narrow, white, imperforate; whorls numerous, contiguous; varices very numerous, thin, laminated, erect, continued at the suture; aperture rather oval.

HAWLEY, Book of Species.

Hab. St. Vincent's, West Indies.

Species 30. (Mus. Brit.)

SCALARIA URBIA. *Sea, testâ angustâ, inter costas pallidâ, fâciâ, foveo-cuboscente spirâliter bifasciatâ, anfractibus numerosis, gradatim crescentibus; varicosis tenuibus, arcuatis, subulstantibus, decumbentibus, ad suturam punctis, aperturâ subarabâ; labio interno antice angulatum expanso.*

THE URBIA SCALARIA. Shell narrow, pale fawn between the ribs, spirally two-banded with reddish-brown; whorls numerous, gradually increased; varices thin, arched, rather distant, decumbent, joined at the suture, aperture subovate; inner lip anteriorly angularly expanded.

SOEWERY, Proc. Zool. Soc., 1844. Thes. Conch., Sp. 36, fig. 62.

Hab. Coast of Comandeur.

Species 31. (Mus. Brit.)

SCALARIA TINUI-COSTATA. *Sea, testâ albâ, subventricosâ, tenui, imperforatâ, anfractibus paucis, subovatis; varicosis laminatis, tenuibus, erectantibus, ad suturam angulatum chertis; aperturâ subovata, labio interno in angulum chertum expanso.*

THE THIN-RIBBED SCALARIA. Shell, white, subventricose

thin, imperforate, whorls few, rather oval; varices laminated, thin, erect, raised angularly at the suture; aperture rather ovate, outer lip expanded into an elevated angle.

SOEWERY, Proc. Zool. Soc., 1844.

Hab. Isl. Luzon, Philippines.

A pretty little characteristic species, with angular varices.

Species 32. (Mus. Brit.)

SCALARIA LINCOLAIA. *Sea, testâ pyramidalâ, ventricosâ, pallidâ fulvâ, inter varicos spirâliter bilineatâ vel bifasciatâ, umbilicatâ, anfractibus pro-arruatis rotundatis; varicosis numericis, tenuibus, rotundatis; aperturâ subovata, labio interno infri angulato.*

THE LINCOLAIA SCALARIA. Shell pyramidal, ventricose, pale fulvous, spirally two-lined or two-banded between the varices, umbilicated; whorls prominently rounded; varices numerous, thin, rounded; aperture subovate, inner lip angular beneath.

SOEWERY, Proc. Zool. Soc., 1844. Thes. Conch., Sp. 32, fig. 45, 46, 48.

Scalaria trifasciata var. Keiner.

Hab. Philippines. Japan.

Species 33. (Fig. a, b, Mus. Sowerby.)

SCALARIA CLARENS. *Sea, testâ pyramidalâ, ventricosâ, albâ, inter varicos nonnunquam fulvâ vel fuscâ, imperforatâ; anfractibus paucis; ultimo anfractu infra median spirâliter univestato; varicosis laminatis, latis, ad suturam punctis, super spicam obliquâ continuâ.*

THE LATTICE SCALARIA. Shell pyramidal, ventricose, white, sometimes fulvous or brown between the varices, imperforate; whorls few; last whorl

spirally single ribbed below the middle; varices laminated, broad, joined at the suture, continued obliquely on the spire.

LINNEUS. *Systema Naturæ*.

Scalaria lamellosa, LAMARCK.

Scalaria monacypala, KEINER. (var.)

Hab. Mediterranean. West Indies.

Species 34. (Fig. *a, b*. Mus. Brit.)

SCALARIA CORONATA. *Sea, testâ ventricosâ, inter varices maculis regularibus triseriatim dispositis ornata, imperforatâ; anfractibus numerosis, contiguis; ultimo anfractu infra medium spirâliter invasato; varices laminatis, numerosis, latis, ad suturam junctis, super spiram obliquè continuis*

THE CROWNED SCALARIA. Shell ventricose, ornamented with regular spots disposed in three rows between the varices, imperforate; whorls numerous, contiguous; last whorl spirally single ribbed below the middle; varices laminated, numerous, broad, united at the suture, oblique, continued on the spire.

LAMARCK. *Animaux sans Vertèbres*.

Hab. West Indies.

More ventricose than *Scalaria chathrus*, and beautifully ornamented by series of spots between the varices.

Species 35. (Mus. Brit.)

SCALARIA GRANULATA. *Sea, testâ pyramidalâ, minutissimè granulatâ, fulvâ, rarissimè varicosâ, albâ anfractatâ; anfractibus declivibus, ad suturam circulatâ; apertura subtriangulâ, labio interno crasso, infra angulato.*

THE GRANULATED SCALARIA. Shell pyramidal, very minutely granulated, fulvous, very rarely varicose, with a single band of white; whorls sloped, crenulated at the suture; aperture subtriangular, inner lip thick, angular beneath.

QUOY ET GAMBARD. *Voyage de l'Astrolabe*.

Hab. Swan River, Australia.

Species 36. (Mus. Brit.)

SCALARIA GEORGETTINA. *Sea, testâ pyramidalâ, albâ, tenui, imperforatâ; anfractibus contiguis, rotundatis; varicibus tumulis, rotundatis, numerosis, acutissimis, rix continuis; apertura ovatâ.*

THE GEORGETTINA SCALARIA. Shell pyramidal, white, thin, imperforate; whorls contiguous, rounded; varices thin, numerous, very narrow, scarcely continuous; aperture ovate.

KEINER. *Iconographie*.

Hab. —?

The varices are more rounded than in *Scalaria communiformis*.



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SCALARIA.

PLATE VI.

Species 37. (Mus. Brit.)

SCALARIA TENNIS. *Sea, testâ albâ, tenui, angustâ, spirâ attenuatâ, anfractibus brevibus, varicibus numerosis, laminatis, tenuibus, obliquis, ad suturam angulatam aculeatis; apertura parvâ, lobis octonâ propè suturam angulatam aculeatâ.*

THE THIN SCALARIA. Shell white, thin, narrow, spirally-tapering, whorls short, varices numerous, laminae 11 thin, oblique, angularly aculeated at the suture; aperture small, outer lip angularly aculeated near the suture.

SOWERBY, Proc. Zool. Soc., 1841.

Hab. West Indies.

Species 38. (Mus. Brit.)

SCALARIA LAXATA. *Sea, testâ tenui, brevi, albâ, anfractibus multo disjunctis, varicibus numerosis, tenuibus, raris, regularibus, laminatis, simplicibus; apertura ovali.*

THE LOOSELY SCALARIA. Shell thin, smooth, white, whorls much disjuncted, varices numerous, thin, scarcely regular, laminated, simple; aperture oval.

SOWERBY, Proc. Zool. Soc., 1841.

Hab. Isl. Luzon, Philippines.

Species 39. (Mus. Brit.)

SCALARIA REPLICATA. *Sea, testâ brevi, albâ, anfractibus sex, paulo disjunctis; varicibus subalternantibus, laminatis, replicatis, propè suturam in lobum elevatam equatis; apertura ovata, subquadrata, marginem sub-spinosâ.*

THE REFOLDING SCALARIA. Shell short, white, whorls six, a little disjuncted; varices rather distant, laminated, folded back, expanded into an elevated

lobe near the suture; aperture large, subquadrated, margin rather expanded.

SOWERBY, Proc. Zool. Soc., 1841.

Hab. Lord Hood's Island.

A well characterized shell with varices curiously folded back upon themselves.

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

SCALARIA PALLASII. *Sea, testâ pyramidalâ, perforatâ, inter varices pallidâ fulvâ, vel fuscâ; anfractibus septem, paulo disjunctis, varicibus laminatis, prominentibus, distantibus, regulariter sequantibus, propè suturam obtusè angulatis.*

PALLAS'S SCALARIA. Shell pyramidal, perforated, pale fulvous, or brown between the varices; whorls seven, a little disjuncted; varices laminar, prominent, distant, following in regular sequence, obtusely angular near the suture.

KIEMER, Icon.

Scalaria principalis, Nonnul.

Hab. Cataman, Philippines.

I shall describe further on in the monograph the larger shell, hitherto included as a distinct species, under the name of *S. neglecta*. It has a larger whorl and more numerous varices, with their angular points more distinct.

Species 41. (Fig. a, b, Mus. Brit.)

SCALARIA HYALINA. *Sea, testâ pyramidalâ, albâ, brevi, tenui, pellucidâ; anfractibus multo disjunctis; varicibus distantibus, laevigatis; apertura rotundatâ, ab ultimo anfractu separatâ, marginem laevigatâ.*

THE HYALINE SCALARIA. Shell pyramidal, white, smooth, thin, pellucid; whorls much disjuncted,

SCALARIA.—PLATE VI.

varices distant, fluted; aperture rounded, separated from the last whorl, margin fluted.

SOWLEBY. Proc. Zool. Soc., 1841.

Hab. Cataman, Isl. Luzon, Philippines.

Species 42. (Mus. Brit.)

SCALARIA DENTICULATA. *Sea, testâ albâ, oblongo-pyramidalâ, spiraliâ & distanter inciso-striatâ; spirâ sub-attenuatâ, anfractibus contiguis; varicibus obliquè sequentibus, tenuibus, numerosis, propè suturam in dentem aculeatam parvam productis.*

THE DENTICULATED SCALARIA. Shell white, oblong-pyramidal, spirally distantly incised, striated; spire rather tapering, whorls contiguous; varices obliquely following in sequence, thin, numerous, produced into a little aculeated tooth near the suture.

SOWLEBY. Thesaurus Conchyliorum. Scalaria, Sp. 19, figs. 25, 26.

Hab. West Indies.

Species 43. (Mus. Brit.)

SCALARIA MURICATA. *Sea, testâ tenui, albâ, elongatâ, imperforatâ; anfractibus contiguis, varicibus latis, laminatis, propè suturam in aliam acuminatam*

expansis; aperturâ ovatâ, marginè anticâ angustâ, posticâ in aliam acuminatam expanso.

THE MURICATED SCALARIA. Shell thin, white, elongated, imperforated; whorls contiguous, varices broad, laminar, expanded into an acuminated wing near the suture; aperture ovate, margin anteriorly narrow, posteriorly expanded into an acuminated wing.

KIENER. Icon. pl. 4, fig. 11.

Species 44. (Mus. Brit.)

SCALARIA MITEIFORMIS. *Sea, testâ pyramidalâ, albâ, tenui; spirâ acuminatâ, anfractibus contiguis, varicibus numerosis, in lobam aculeatam parvam propè suturam expansis; aperturâ ovatâ; labio externo ad suturam emarginato, tum aculeatâ lobato.*

THE MITE-FORMED SCALARIA. Shell pyramidal, white, thin; spire acuminated, whorls contiguous, varices numerous, expanded into an aculeated small lobe near the suture; aperture ovate; outer lip emarginated at the suture, then sharply lobed.

SOWLEBY. Proc. Zool. Soc., 1841.

Hab. Guacomayo. Central America.

Very similar to the preceding, but with the varices more numerous, narrower, and forming a smaller and sharper point at the angle.



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SCALARIA.

PLATE VII.

Species 15. (Mus. Brit.)

SCALARIA (PALL.) *Sea, testâ alba, 3 spirâ triplicâ, tenui, apice parâ obtusâ, angustibus parvis, lateribus rotundis, brevissimis, in apice, obliquâ, et in foveâ, a latitudine parâ expressâ.*

THE COMMON SCALARIA. Shell white, short, cylindrical, thin, spire pyramidal, whorls few, broadly ventricose; varices very thin, numerous, oblique, nearly oblong to the middle, a little expanded at the extremity.

SOWERBY, Proc. Zool. Soc., 1844.

Hab. —?

The specimen in the Cunningham Collection which this shell was originally described was somewhat incomplete.

Species 16. (Fig. a, b, Mus. Brit.)

SCALARIA ACULEATA. *Sea, testâ parâ, albâ, a parâ, angustibus rotundis, contiguis; spirâ brevissimâ, a latitudine subdistansibus, septâ brevâ, ad suturam emarginatâ, foveâ in lobata parâ aculeatâ elevatâ; aperturâ ovatâ, labiis externis posticis emarginatis et lobatis.*

THE ACULEATED SCALARIA. Shell small, white, narrow, whorls eight, contiguous; varices rather thick, rather distant, following in sequence, emarginated at the suture, then elevated into a small aculeated lobe; aperture ovate, outer lip posteriorly emarginated and lobed.

SOWERBY, Proc. Zool. Soc., 1844.

Hab. Hongkong, Malacca, Philippines.

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

SCALARIA TRIFASCIATA. *Sea, testâ brevissimâ, retroversâ, inter varices antice-subfusâ, fasciâ tribus spirâlibus ornatâ; spirâ brevi, angustibus parvis, ventricosis; varicibus numerosis, inæqualibus, subrotundis.*

THE THREE-BANDED SCALARIA. Shell very short, conical, middle oblongish between the varices, ornamented with three spiral bands; spire short, whorls few, ventricose; varices numerous, unequal, rather rounded.

DE HAAN, —?

Hab. Masbate, Philippines.

Very much shorter than *Scabaria imperialis*, which it resembles in the colouring and varices.

Species 18. (Fig. a, b, Mus. Brit.)

SCALARIA GRIPSA. *Sea, testâ albâ, parâ, brevi, subrotundâ, spirâ brevissimâ, apice obtusâ, angustibus parvis, contiguis, retro-versâ, in apice, a latitudine apicâ obtusâ ampliatâ.*

THE GRIPSED SCALARIA. Shell white, small, short, rather ventricose; spire rather short, apex obtuse, whorls few, contiguous, varices numerous, thin, abruptly angular above.

Species 19. (Mus. Brit.)

SCALARIA CURVILINEATA. *Sea, testâ subcylindricâ, albâ, apice obtusâ, angustibus parvis, oblongis, contiguis, varicibus curvilineatis, simplicibus, aperturâ ovatâ.*

THE CURVILINEAR SCALARIA. Shell sub-cylindrical, whitish, spire obtuse, whorls few, oblong, contiguous, varices curvilinear, simple, aperture ovate.

SOWERBY, Proc. Zool. Soc., 1844. Thes. Conch., t. 59.

Hab. San-onâi, Central America.

Species 20. (Mus. Brit.)

SCALARIA CONCINNA. *Sea, testâ parâ, albâ, pyramidalâ, spirâ modicâ elevatâ, angustibus parvis,*

SCALARIA.—PLATE VII.

*contiguis, varicibus numerosis, appressatis, crossi-
culis, simplicibus; apertura ovata.*

THE SLAT SCALARIA. Shell small, whitish, pyramidal,
spire moderately elevated, whorls few, contiguous;
varices numerous, close, rather thick, simple,
apertures ovate.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., fig. 63.
Hab. Isl. Bohol, Philippines.

The varices are much more close and numerous than
in *Scalaria multivittata*.

Species 51. (Mus. Brit.)

SCALARIA OBLIQUA. *Sea, testâ parvâ, albâ, tenui, spirâ
attenuatâ, anfractibus obliquis, vix contiguâ,
varicibus obliquis, tenuibus, numerosis, propi-
suturem breviter angulatis.*

THE OBLIQUE SCALARIA. Shell small, white, thin, spire
attenuated, whorls oblique, scarcely contiguous,

varices oblique, numerous, slightly angular near
the suture.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., fig. 69.
Hab. ———!

More finely and obliquely ribbed than *Scalaria tenuis*.

Species 52. (Mus. Brit.)

SCALARIA TRIANGULARIS. *Sea, testâ albâ, pyramidalâ,
tenuissimâ; spirâ elevatâ, anfractibus contiguâ,
convexis, varicibus tenuissimis, densis, ad suturam
aculeatis; apertura majusculâ, ovatâ.*

THE TRIANGLE SCALARIA. Shell white, pyramidal, very
thin; spire elevated, whorls contiguous, convex,
varices very thin, close, aculeated close to the
suture; aperture rather large, ovate.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., fig. 71.
Hab. Swan River, Australia. LIGHT, COLLECT.

The varices are extremely thin and thread-like.



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60-a



60-b



60-c

SCALARIA.

PLATE VIII.

Species 53. (Mus. Brit.)

SCALARIA SPLICATA. *Sea, testâ parvâ, attenuatâ, inter varices costatâ, spirâ ead. elevatâ, angustibus contiguis, numerosis, varicibus albis, sequentibus, prop. suturam emarginatis et aculeatis.*

THE SLENDER SCALARIA. Shell small, attenuated, fulvous between the varices, spir. much elevated, whorls contiguous, numerous, varices white, following in sequence, emarginated and aculeated near the suture.

SOWERBY. Proc. Zool. Soc. 1844. Thes. Conch., fig. 33.
Hab. Dumaguete, Isl. of Negros, Philippines.

Species 54. (Mus. Brit.)

SCALARIA CLATHRATA. *Sea, testâ parvâ, albâ, tenui, imperforatâ, angustibus numerosis, r. contiguis, varicibus numerosis, rotundatis, irregularibus, prop. suturam subangulatis, apertura ovata.*

THE CROSS-BARR'D SCALARIA. Shell small, white, thin, imperforate, whorls numerous, scarcely contiguous, varices numerous, rounded, irregular, slightly angular near the suture; aperture ovate.

MONTAGU. Testacea Britannica.

Hab. Great Britain.

Species 55.

SCALARIA UNICOSTATA. *Sea, testâ parvâ, pyramidalâ, fulvâ, infra spirâliber anulatâ, angustâ ultimo fusco bifasciatâ; varicibus ad angustiam utraquevad. sequenti, suturâ minutissimè creulatis; apertura parvâ, rotundâ, margine crasso, rotundâ.*

THE ONE-RIDGE SCALARIA. Shell small, pyramidal, fulvous, with a spiral ridge below, last whorl with two brown bands; varices, one on each whorl following, suture very minutely crenulated; aperture small, rounded, margin thick, rounded.

SOWERBY.

Hab. America.

This little shell is figured in *Thesaurus Conchyliorum*, as a variety of the preceding, but as it has only one varix on each whorl, and a small, round thick-lipped aperture, it may be worthy of a separate name and description.

Species 56. (Mus. Brit.)

SCALARIA LIMATA. *Sea, testâ solidâ, pyramidalâ, inter varices purpureo-fusci, spirâ elevatâ, angustibus septem, infra spirâliber anulatâ obliquis, varicibus albis, numerosis, simplicibus, rotundis, obliquis; apertura angustula, fuscâ.*

THE LIMATED SCALARIA. Shell solid, pyramidal, purple-brown between the varices, spir. elevated, whorls seven, with a spiral ridge below oblique, varices white, numerous, simple, rounded, oblique; aperture rather large, brown.

SAY. — ?

Hab. N. America.

Species 57. (Mus. Brit.)

SCALARIA AEBOLIMATA. *Sea, testâ parvâ, angustopyramidalâ, inter varices fusco-purpureâ; spirâ elevatâ, angustibus octo, varicibus albis, numerosis, crassiusculis, medio obscurè angulatis; apertura parvâ, rotundâ.*

THE WHITE-LINED SCALARIA. Shell small, narrow, pyramidal, brown-purple between the varices; spir. elevated, whorls eight, varices white, numerous, rather thick, obscurely angular in the centre; aperture small, rounded.

SOWERBY. *Thesaurus Conchyliorum*, *Scalaria*, Sp. 68, fig. 52.

Hab. — ?

Somewhat resembling *Scalaria Philippinarum* but with the whorls less separated and the varices slightly angular.

August, 1873.

SCALARIA.—PLATE VIII.

Species 58. (Mus. Brit.)

SCALARIA INCONSPICUA. *Sci. testâ minuti, albâ, brevi, excavatâ, umbilicatâ, spirâ pyramidalâ, anfractibus paucis, rotatis: varicibus numerosis, tenuissimis, obliquis; apertura subquadrata, superne ex angularatâ, labiâ inferâ basi columella angularatâ.*

THE INCONSPICUOUS SCALARIA. Shell minute, white, short, ventricose, umbilicated, spire pyramidal, whorls few, rounded; varices numerous, very thin, oblique; aperture subquadrate, scarcely angular above, inner lip angular at the base by the columella.

SOWERBY. *Thesaurus Conchyliorum, Scalaria*, Sp. 30, fig. 53.

Hab. West Indies.

Species 59. (Fig. a, b, Mus. Brit.)

SCALARIA FURRICULA. *Sci. testâ angusto-pyramidalâ, umbilicatâ; spirâ inter minutissimè striatâ, inter varices fulvo-cubescenti, anfractibus numerosis, levatis, contiguis; varicibus frequentibus, albis, plerumque tenuibus, nonnullis crassioribus. apertura rotatâ, parvâ.*

THE FURRICULATED SCALARIA. Shell narrow, pyramidal, umbilicated; spirally very minutely striated,

reddish brown between the varices, whorls numerous, elevated, contiguous; varices frequent, white, mostly thin, some thicker; aperture ovate, small.

SOWERBY. *Thesaurus Conchyliorum*, Sp. 37, fig. 62.

Hab. West Indies.

Species 60. (Fig. a, b, Mus. Brit.)

SCALARIA BICARNATA. *Sci. testâ parvâ, subcylindricâ, imperforatâ, albâ, angustâ, minutissimè cancellatâ, spirâ elevatâ, obtusâ, anfractibus lateraliter excavatis, alternatis, ultimo anfractu breviusculo, valdè bicarinatâ, suturâ foveatâ, apertura parvâ, subquadratâ.*

THE BICARNATED SCALARIA. Shell small, subcylindrical, imperforate, whitish, narrow, very minutely cancellated, spire elevated, obtuse, whorls rather straight-sided, attenuated, last whorl rather short, strongly bicarinated, suture pitted, aperture small, rather square.

SOWERBY. *Proc. Zool. Soc.*, 1841. *Thes. Conch.*, Sp. 85, fig. 113, 114.

Hab. Dumaguete, Is. of Negros, Philippines.



SCALARIA.

PLATE IX.

Species 61. (Mus. Brit.)

SCALARIA VINOSEA. *Sea, testâ pyramidalâ, lavi, acuminatâ, imperforatâ; anfractibus prominentibus, cocontiguâ; varicibus appropinquatis, crassiusculis, laevibus et inflexis, lobis reflexis, superius angulatis, parvis, colorâ angustheribus; aperturâ rotundatâ; suturâ pittedâ.*

THE ALBINO SCALARIA. Shell pyramidal, smooth, acuminated, imperforate; whorls prominent, scarcely touching; varices close, rather thick, roundly reflected in the middle and beneath, angular above, narrow near the suture; aperture rounded; suture pitted.

SOWERBY. Thesaurus Conchyliflorum, Sp. 26, fig. 72, 73. *Hab.* West Indies.

The varices, being roundly reflected have a peculiar vein-like appearance.

Species 62. (Mus. Brit.)

SCALARIA BELELIS. *Sea, testâ brevissimâ, ventricosâ, imperforatâ, fulvâ; spirâ brevi, anfractibus quâque, rotundis, contiguâ, varicibus subdistantibus, leviter arcuatis, rotundis; aperturâ ovato, columellâ.*

THE BLUE SCALARIA. Shell very short, ventricose, imperforated, fulvous; spire short, whorls five, rounded, contiguous, varices rather distant, slightly arched, rounded; aperture large, ovate-rounded.

SOWERBY. Proc. Zool. Soc., 1844. Thesaurus Conchyliflorum, fig. 85.

Species 63. (Mus. Brit.)

SCALARIA SIMILIS. *Sea, testâ albâ, tenui, subventricosâ, subtilissimâ spirâlate striatâ, spirâ brevissimâ, anfractibus sœ, contiguâ, varicibus tenuissimâ, aperturâ obliquè ovatâ.*

THE SIMILAR SCALARIA. Shell white, thin, a little ventricose, very minutely spirally striated, spire rather short, whorls six, contiguous, varices very thin, aperture obliquely ovate.

SOWERBY. Proc. Zool. Soc., 1844. Thesaurus Conchyliflorum, Sp. 44, fig. 90.

Hab. Philippines.

Species 64. (Mus. Brit.)

SCALARIA FEBERLINATA. *Sea, testâ subventricosâ, perforatâ, fulvâ, inter varices spirâliter cubra columellatâ; spirâ brevissimâ, anfractibus quâque, contiguâ; varicibus numerosis, albâ, moderatè arcuatis, simplicibus, aperturâ intus avorâ, columellâ obtusè angulatâ.*

THE RED-LINED SCALARIA. Shell rather ventricose, perforated, light brown, with a single spiral red line; spire rather short, whorls five, contiguous; varices numerous, white, moderately arched, simple, aperture golden within, columella obtusely angular.

SOWERBY. Thesaurus Conchyliflorum, Sp. 33, fig. 83, 84. *Hab.* — ?

Species 65. (Mus. Brit.)

SCALARIA MULTICOSTATA. *Sea, testâ parvâ, fulvâ, pyramidalâ, anfractibus parvis, apice obtuso, varicibus albâ, crassiusculis, numerosis, inæqualibus; aperturâ parvâ, rotundâ.*

THE MANY-RIBBED SCALARIA. Shell small, fulvous, pyramidal, whorls few, apex obtuse, varices white, rather thick, numerous, unequal; aperture small, rounded.

SOWERBY. Proc. Zool. Soc., 1844. *Hab.* Isl. Corrigidor, Philippines.

SCALARIA.—PLATE IX.

Species 66. (Mus. Brit.)

SCALARIA MINDOROENSIS. *Sea, testâ albâ, parvâ, imperforatâ, pyramidatâ, spirââ elevatâ, angustibus quinque, contiguis, varicibus inæqualibus, numerosis, rotundis, simplicibus, aperturâ ovatâ.*

THE MINDORO SCALARIA. Shell white, small, imperforate, pyramidal, spire elevated, whorls five, contiguous, varices unequal, numerous, rounded, simple, aperture ovate.

SOWERBY, Proc. Zool. Soc., 1844. Thes. Conch., fig. 94.

Hab. Puerto Gallero, Isl. Mindoro.

Species 67. (Fig. a, b, Mus. Brit.)

SCALARIA CATAXCENSIS. *Sea, testâ parvâ, lævi, fultâ, minutissimè spirâli striatâ, spirâ brevissimâ, angustibus septem, varicibus minutissimis, tenuissimis, unâ calidi propè aperturam dorso conspicuâ.*

THE CATAXCAN SCALARIA. Shell small, short, brown, very minutely spirally striated, spire rather short, whorls seven, varices very minute, very thin, one strong conspicuous on the back near the aperture.

SOWERBY, Proc. Zool. Soc., 1844. Thesaurus Conchyliorum, Sp. 43, fig. 93, 94.

Id. Catuburan, Isl. Luzon, Philippines.

Species 68. (Mus. Brit.)

SCALARIA PULCHERRIMA. *Sea, testâ parvâ, lævi, ventri costâ, inter varices fusco-purpurâ; spirâ lævi, angustibus sex, varicibus numerosis, propinquis, obliquis, albâ, ad suturam acuminatim lobatâ; aperturâ ovatâ, ad suturam lobatâ.*

THE VERY BEAUTIFUL SCALARIA. Shell small, short, ventricose, brownish-purple between the varices; spire short, whorls six, varices numerous, near, oblique, white, acuminately lobed at the suture; aperture ovate, lobed at the suture.

SOWERBY, Proc. Zool. Soc., 1844. Thes. Conch., Sp. 58, fig. 92.

Hab. Dumaguete, Isl. Negros, Philippines.

Species 69. (Mus. Brit.)

SCALARIA CREBERRIMA. *Sea, testâ parvâ, pallidè grisâ, acuminatâ, lævi, imperforatâ, angustibus paucis, rotundis; varicibus numerosissimis, levibus, paulatim prominuntibus; aperturâ subcirculari, labiâ interno latè reflexâ.*

THE CLOSE-RIBBED SCALARIA. Shell small, pale grey, acuminated, smooth, imperforate, whorls few, rounded; varices very numerous, smooth, rather prominent; aperture rather rounded; inner lip widely reflected.

HINDS, Proc. Zool. Soc., 1843. Thesaurus Conchyliorum, Species 56, fig. 95.

Hab. New Guinea.



SCALARIA.

PLATE X.

Fig. 45, ♀. MUS. BRIT. A much more finely developed shell than that figured in the seventh plate.

Species 70. (Mus. Brit.)

SCALARIA MINOR. *Sci. testâ turritâ, gracili, pallidâ, plebis spiralliter biscostatis, spirâ elongatâ, anfractibus obliquis, proaequantibus, supra chlamydatâ, infra spiralliter unicoscostatis, apertura costarum, longitudinaliter obliquis, et arcuatis.* L. 1855.

THE MINOR SCALARIA. Shell turritid, narrow, with two spiral bands of pale brown; spire elongated; whorls oblique, prominent, slightly angular above, with a single spiral rib at the lower part, chestnut below the rib; longitudinally obliquely and sinuously ridged.

SOWERBY.

Aerilla gracilis, A. Adams.

Hab. Mouth of the Indus.

The name *gracilis* having been already applied to another *Scalaria*, cannot be applied to the present species if included in the genus. Would it not be better in separating small groups from old genera, to avoid using specific names already applied to shells belonging to those genera? *Aerilla* may be a very good genus, but its adoption should be left optional, by not using a specific name already occupied in the old genus.

Species 71. (Mus. Brit.)

SCALARIA ATTENUATA. *Sci. testâ parvâ, angustâ, albidâ; spirâ elongatâ, attenuatâ; anfractibus altis, obscurissimè biangulatis et nubilis, suturis crenulato, foveolatis; ultimo anfractu magis prominenti, distinctè nodoso-biangulato; apertura rotundi, labio externo crasso, cespino.*

THE ATTENUATED SCALARIA. Shell small, narrow, whitish; spire elongated, attenuated; whorls

elevated, very obscurely biangular and nodose, suture crenulated, pitted; last whorl more prominent, distinctly nodosely biangulated; aperture rounded; outer lip thick, expanded.

PLATE. — ?

Hab. Sandwich Islands.

This species very nearly resembles *Scalaria bicarinata*, Sowerby. It is, however, narrower and more tapering, and the keels on the last whorl are nodose and much less distinct.

Species 72. (Mus. Brit.)

SCALARIA BARRIËL. *Sci. testâ parvâ, subcarrulâ, levigatâ, pyramidalâ; anfractibus novem, altis, medio latioribus, supra intrisque plicatis; plicis ad suturam in nodos elevatis, interstitiis foveolatis, apertura parvâ, ovata, labio externo rotundo.*

BARRIËL'S SCALARIA. Shell small, bluish, smooth, pyramidal; whorls nine, elevated, smooth in the middle, plicated above and below; plaits raised into knobs at the suture, interstitiis pitted; aperture small, ovate, outer lip rounded.

SMITH, Proc. Zool. Soc., 1871.

Hab. Whydah, South Africa.

This pretty little species is among some very interesting shells brought by Captain Knocker from South Africa, and described by Mr. E. Smith of the British Museum, whose advent we welcome as a working conchologist.

Species 73. (Mus. Brit.)

SCALARIA MIRANDA. *Testâ parvâ, subcarrulâ, fulvo-subcarrulâ, inter carinas spiralliter tenuissimè striatâ; spirâ acuminatâ, anfractibus octo, rotundis, ultimo anfractu subinflato; varicibus creberrimis, tenuissimis, laminatis; apertura ovata, columelli crassa, arcuatâ, labio externo tenui.*

August, 1873.

SCALARIA.—PLATE X.

THE WONDERFUL SCALARIA. Shell small, subventricose, fulvous-greyish, very finely spirally striated between the varices; spire acuminate, whorls eight, rounded, last whorl somewhat inflated; varices very close, very thin, lamina; aperture ovate, columella thick, arched, outer lip thin.

SMITH. Proc. Zool. Soc., 1873.

Hab. Whydah, South Africa.

Another addition to the *Scalariæ* from the same sources as the preceding species.

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

SCALARIA AUCIMINATA. *Sea, testâ elongatâ, imperforatâ, acuminatâ, pallidâ; julæ, spirâliter fusco lûtuâ; anfractibus quinque, paulo curvatis, anticè carinatis. varicibus numerosissimis, crassissimis, hepater curvis. apertura longiusculâ, labio externo tenui, columellâ subemplanatâ, arcuatâ.*

THE AUCIMINATE SCALARIA. Shell elongated, imperforated, acuminate, pale fulvous, with two brown spiral bands; whorls fifteen, little convex, anteriorly keeled; varices very numerous, very close, elegantly curved; aperture rather long, outer lip thin, columella flattened, arched.

SOWLEY. Proc. Zool. Soc., 1844.

Hab. Malacca.

The specimens from which figs. a and b are drawn differ so much in their proportions, that the writer has felt almost inclined to assign a new specific name to fig. a. Still we find other species varying in nearly the same degree.

Species 75. (Mus. Brit.)

SCALARIA BOREALIS. *Sea, testâ crassâ, albâ pycnanthâ, lûtâsculâ; anfractibus octo, anticè obtusè carinatis, ad laterâ rectiusculis, intrâ carinam subemplanatis; varicibus paucis, rotundis, indistinctis, imparibus, irregularibus, nonnullis medio subcavitâ, et sutura subnodosis; apertura subquadratâ, labio externo crasso, rotundo, columellâ rectiusculâ, anticè subemplanatâ.*

THE BOREAL SCALARIA. Shell thick, whitish, pyramidal, rather broad; whorls eight, anteriorly obtusely keeled, rather straight at the sides; a little flattened below the keel; varices few, rounded, indistinct, unequal, irregular, some partly disappearing in the middle, somewhat nodose at the suture; aperture squarish, outer lip thick, rounded; columella rather straight, rather embeate in front.

GOULD. — ?

Hab. Vancouver's Island.

A thick-set irregularly formed species.

Species 76. (Mus. Brit.)

SCALARIA MOEHLI. *Sea, testâ parvâ, imperforatâ, attenuatâ, albâ, apicè fusca; anfractibus octo, elevatis, levibus, rarissimè varicosis; apertura ovatâ, columellâ parvâ, obliquâ.*

MOEHLI'S SCALARIA. Shell small, imperforated, attenuated, whitish, apex fulvous; whorls eight, raised, smooth, very rarely varicose; aperture ovate, columella small, oblique.

ANGAS. Proc. Zool. Soc., 1871.

Hab. Port Jackson.

Species 77. (Mus. Brit.)

SCALARIA POLITA. *Sea, testâ tenui, politissimâ, elongatâ, pallidè grisâ; anfractibus numerosis, concavissimè carinatis; varicibus subnodosis, tenuibus, medio anfracturam obsolis; apertura subelongatâ, labio externo tenui.*

THE POLISHED SCALARIA. Shell thin, very polished, elongated, pale grey; whorls numerous, rather convex; varices rather numerous, thin, obsolete in the middle of the whorls; aperture a little lengthened, outer lip thin.

SOWLEY. Proc. Zool. Soc., 1844.

Hab. Xiqinappi, West Columbia.

A pretty little species in which the varices, forming a little curved node at the suture, thin out and disappear towards the centre of the whorl.



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S C A L A R I A.

PLATE XI.

Species 78. (Mus. Brit.)

S. ALARIA *RODENSEA*. *Sea, testâ parvâ, imperforatâ, ventricosa, pallidâ, fulvâ, levissimâ; anfractibus plenis, concentricis, varicibus paucis, laminaformibus, simplicibus; apertura subrotundâ, labio externo crassiusculo.*

THE SMALLEST *S. ALARIA*. Shell small, imperforated, ventricose, pale fulvous, rather short; whorls seven, rather convex, varices few, laminaform, simple; aperture rather round, outer lip rather thick.

C. B. ADAMS. Shells of Jamaica.
Hab. Jamaica.

Species 79. (Mus. Brit.)

S. ALARIA *PUMILA*. *Sea, testâ minutâ, levissimâ, imperforatâ, ventricosa, pallidâ, fulvâ; anfractibus siccis, rotundatis, distinctis, varicibus crassiusculis, rotundis, approximatis; apertura rotundâ.*

THE SMALLEST *S. ALARIA*. Shell minute, rather short, imperforate, ventricose, pale fulvous; whorls six, rounded, distinct; varices rather thick, rounded, approximate; aperture rounded.

A. ADAMS. Proc. Zool. Soc.
Hab. Japan.

Species 80. (Mus. Brit.)

S. ALARIA *JEKUSIANA*. *Sea, testâ parvâ, albâ, imperforatâ, spirâ elevatâ; anfractibus novem, ad suturam distinctis, varicibus numerosis, subannatis, siccis æqualibus, apertura ovata, labio externo tenuissimâ, edentâ illâ arcuatâ.*

JUKI'S *S. ALARIA*. Shell small, white, imperforate, spirally elevated; whorls nine, distinct at the suture, varices numerous, rather lamina, nearly equal; aperture ovate, outer lip rather thin, columella arched.

FORBES.
Hab. Broken Bay, New South Wales.

The whorls are more distinct and rounded than in *Scalaria clathrens*.

Species 81. (Mus. Brit.)

S. ALARIA *INDIANORUM*. *Sea, testâ pyramidatâ, albâ, imperforatâ; spirâ elevatâ, anfractibus decem, rotundis, distinctis; varicibus numerosis, rotundis, æquidistantibus, æqualibus, præp. suturam obtuse angulatis, apertura subrotundâ, columellâ inæta subannatâ.*

THE INDIAN'S *S. ALARIA*. Shell pyramidal, white, imperforate; spire elevated, whorls ten, rounded, distinct; varices numerous, rounded, equally distant, equal, obtusely angular near the suture; aperture rather round, columella rather cuneate below.

CAMPBELL. — ?

Hab. Vancouver's Island.

Species 82. (Mus. Brit.)

S. ALARIA *MAGELLANICA*. *Sea, testâ albâ, levissimâ, solidâ, subventricosa, imperforatâ, turratâ; spirâ elevatâ, anfractibus altis, scalatis, distinctis, antea costâ inconspicuâ spirali cinctis; varicibus crassiusculis numerosis, præp. suturam in angulum subrotundum curvis; apertura subquadratâ, labio externo posticè angulato; columellâ anticè emicatâ.*

THE MAGELLAN *S. ALARIA*. Shell white, rather short, solid, subventricose, imperforate, turreted; spire elevated, whorls high, ladder-like, distinct, gilt with an inconspicuous spiral rib anteriorly; varices rather thick, numerous, bent in a roundish angle near the suture; aperture rather spiny, outer lip posteriorly angular; columella anteriorly cuneated.

PHILIPPI. — ?

Hab. Straits of Magellan.

Belonging to the same group as *Scalaria australis*, but with the whorls fewer, shorter, and more rounded

August, 1873.

SCALARIA.—PLATE XI.

Species 83. (Mus. Brit.)

SCALARIA ESCHERICHII. *Sea. testâ pyramidalâ, pallidâ; gisso-jalrâ; spirâ elevatâ, acuminatâ, anfractibus octo, rîe convexis, ultimo magno, ventricosâ, antice angulatâ, varicibus nullis, aperturâ magno, utriusque unimulatâ; labio latero tenui.*

ESCHERICH'S SCALARIA. Shell pyramidal, pale grey-fulvous; spire elevated, acuminate, whorls eight, scarcely convex, last large, ventricose, anteriorly angular, varices none, aperture large, acuminate at each end; outer lip thin.

HOLMEL. — ?

Hab. Greenland.

Of a similar form to *Scalaria granulosa*, but much lighter in texture and less compact.

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

SCALARIA DIADEMA. *Sea. testâ solidâ, brevi, ventricosâ, pallidâ jalrâ, vel sub-ovalâ, hexipatâ; spirâ brevi, obtusâ, scalatâ; anfractibus quadratis, supernè angulatis, infrâ costâ conspicuâ carinatis, costis rotundis, crassis, longitudinalibus propè suturam nodosis sculptis, ultimo nequaquam planulato, costis longitudinalibus nullis.*

THE DIADEM SCALARIA. Shell solid, short, ventricose, pale fulvous or greyish, smooth; spire short, obtuse, ladder-like; whorls quadrate, angular above, keeled with a conspicuous rib below, sculptured with rounded, thick, longitudinal ribs nodose near the suture, the last sometimes flattened, without longitudinal ribs.

SOWERBY. *Thesaurus Conchyliorum*. Species 89, fig. 121, 122.

Hab. St. James's Island, Gallapagos.

Species 85. (Mus. Brit.)

SCALARIA OCTABILIS. *Sea. testâ parvâ, brevissimâ, ventricosâ, albâ, inter varices regulariter pallidâ bimaculatâ; spirâ brevi, anfractibus paucis, ultimo anfractu ventricosâ, varicibus rotundis, aequalibus, subsistatibus; aperturâ subovatâ.*

THE DESIRABLE SCALARIA. Shell small, very short, ventricose, whitish, with two pale regularly placed spots between the varices; spire short, whorls few, last whorl ventricose, varices rounded, equal, rather distant; aperture subovate.

A. ADAMS. *Proc. Zool. Soc.*

Hab. — ?

A remarkable pretty little species.

(Species 86. Mus. Brit.)

SCALARIA CUSTA. *Sea. testâ parvâ, acuminatâ, albâ, anfractibus octo, moderate convexis, suturâ distinctâ; varicibus numerosis, inaequalibus, nonnullis crassiusculis, ad suturam subnodosis; aperturâ ovalâ.*

THE CHASTE SCALARIA. Shell small, acuminate, white; whorls eight, moderately convex, suture distinct; varices numerous, unequal, some rather thick, slightly nodose at the suture; aperture rather oval.

A. ADAMS. *Proc. Zool. Soc.*

Hab. Japan.

In appearance rather resembling *Scalaria Philippi-eriana*, but the varices are much more numerous and some of them laminae.



86^a



87^a



88^a



89^a



90^a



91^a



92^a



93^a



94^a



95^a

SCALARIA.—PLATE XII.

varicibus numerosis, planulatis, leviter arcuatis, albescentibus; ad suturam lobatis; apertura subovata, labio externo albo.

TREVELYAN'S SCALARIA. Shell pyramidal, fulvous, whorls ten, united, moderately convex; varices numerous, flat, slightly arched, whitish; lobed at the suture; aperture subovate, outer lip white.

LEACH ———?

Hab. Great Britain.

Species 93. (Mus. ———? copied.)

SCALARIA LACTEA. *See testâ minuti, albi, pyramidatâ, anfractibus novem: varicibus numerosis, laminatis, extantibus, hamâ continuis.*

THE MILK SCALARIA. Shell minute, white, pyramidal, whorls nine; varices numerous, laminated, extant, not continuous.

KEAUSS. Sudafrikanischen Mollusken.

Hab. South Africa.



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103

SCALARIA.

PLATE XIII.

Species 94. (Mus. Brit.)

SCALARIA CRASSICOSTATA. *Sea, testâ parvâ, albâ, levî, anfractibus paucis; suturâ distinctâ, joveolatâ; altilis anfractu infimâ obscurè carinata; varicibus paucis, crassis, rotundis, levibus, subdistantibus.*

THE THICK-RIBBED SCALARIA. Shell small, white, short; whorls few; suture distinct, pitted; last whorl obscurely keel'd below; varices few, thick, rounded, smooth, rather distant.

SOWLEY. The surfis Conchyliflorum, Sp. 83, fig. 119.
Hab. — ?

Not unlike *Scalaria Australis*, but with the ribs and lower keel much less defined.

Species 95. (Mus. Brit.)

SCALARIA CONNEXA. *Sea, testâ minutâ, subcylindricâ, inter costas pallidè purpurâ; spirâ obtusâ; varicibus obliquis, laminatis, albis, crebris, connexis.*

THE CONNECTED SCALARIA. Shell small, subcylindrical, pale purple between the ribs; spire obtuse; varices oblique, laminar, white, close, connected.

SOWLEY. Proc. Zool. Soc., 1844.
Hab. Isl. Luzon, Philippines.

Species 96. (Mus. Brit.)

SCALARIA OVALIS. *Sea, testâ minutâ, crassâ, ovatâ, albâ, intercostis crassâ; anfractibus quinque, contiguis, basal prominentibus; varicibus paucis, crassis, suprâ suturam elevatis; aperturâ auriformi, margine expanso.*

THE OVAL SCALARIA. Shell minute, thick, ovate, whitish, bluish between the ribs; whorls five, contiguous, not prominent; varices few, thick,

elevated above the suture; aperture auriform, margin expanded.

SOWLEY. Proc. Zool. Soc., 1844.
Hab. Cagayan, Isl. Mindoro, Philippines.

Species 97. (Mus. Brit.)

SCALARIA SUECATA. *Sea, testâ elongatâ, acuminatâ, tenui, albâ, minutè spirâliter striatâ; spirâ aciculatâ; suturâ distinctâ; varicibus numerosis, laminatis, tenuibus.*

THE SLEATED SCALARIA. Shell elongated, acuminate, thin, white, minutely spirally striated; spire aciculated; suture distinct; varices numerous, laminated, thin.

SOWLEY. Proc. Zool. Soc., 1844.
Hab. Catmanan, Isl. Luzon, Philippines.

A most delicately sculptured little shell.

Species 98. (Mus. Brit.)

SCALARIA ACICULATA. *Sea, testâ parvâ, elongatè aciculatâ, inter varices purpureo-fuscâ; anfractibus numerosis, convexiusculis; varicibus albis, subdistantibus, tenuibus, rotundis, sequentiâ firè angulatis, continuis.*

THE NEEDLE SCALARIA. Shell small, elegantly acicular, purple-brown between the varices; whorls numerous, rather convex; varices white, rather distant, thin, rounded, nearly angular above, continuous.

HINDS. Proc. Zool. Soc., 1813.
Hab. America.

Species 99. (Mus. Brit.)

SCALARIA GLAUCATA. *Sea, testâ pyramidalâ, acuminatâ, nitentî, inter varices maculis tribus pallidè fuscis marmoratâ; varicibus inæqualibus, sequentibus, albis; suturâ profundâ.*

SCALARIA.—PLATE XIII.

THE SHINING SCALARIA. Shell pyramidal, acuminate, shining, marbled between the varices with three pale brown spots; varices irregular, following, white; suture deep.

HINDS. Proc. Zool. Soc., 1843.

Hab. Maccassar. Malacca.

Species 100. (Mus. — ?)

SCALARIA NOVANGOLLE. *Sea. testâ parvâ, fuscâ, spiralliter minutè striatâ, firè imperforatâ; apice attenuatâ; varicibus tenuibus, ad suturam acuminatim productis.*

THE NEW ENGLAND SCALARIA. Shell small, brown, spirally minutely striated, nearly imperforate; apex attenuated; varices thin, sharply produced at the suture.

CORTHOY. Boston Journal of Science.

Hab. — ?

Species 101. (Mus. Brit.)

SCALARIA VESTALIS. *Sea. testâ parvâ, albo-ceruleiscenti, breviter pyramidatâ; spiralliter minutissimè striatâ; anfractibus rotundis, varicibus simplicibus, minutis; apertura ovata, majusculâ.*

THE VESTAL SCALARIA. Shell small, bluish white, shortly pyramidal; spirally very minutely striated; whorls rounded, varices simple, minute; aperture ovate, rather large.

HINDS. Proc. Zool. Soc., 1843.

Hab. New Guinea.

Species 102. (Mus. Brit.)

SCALARIA ELENENSIS. *Sea. testâ parvâ, albâ, breviter pyramidatâ; anfractibus paucis, suturâ profundâ; varicibus parvulis, continuis, simplicibus, ad suturam subplicatis.*

THE ST. ELENA SCALARIA. Shell small, white, shortly pyramidal; whorls few, suture deep; varices very few, continuous, simple, slightly plaited at the suture.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. St. Elena, West Columbia.

A curious little white species, with the varices very far apart, about six in a revolution.

Species 103. (Mus. — ? copied.)

SCALARIA MACULOSA. *Sea. testâ elongatâ, pyramidatâ, acuminatâ; inter varices purpureo maculatâ; varicibus regularibus, superne angulatis, apertura ovata.*

THE SPOTTED SCALARIA. Shell elongated, pyramidal, acuminate; spotted with purple between the varices; varices regular, angular above, aperture ovate.

ADAMS AND REEVE. Voy. Samarang, Moll. Pl. XI. f. 14.

Hab. — ?

Between each varix there is an arranged ornamentation of purplish spots.



103



104



106



107



108



109



107A



110



110B



111

SCALARIA.

PLATE XIV.

Species 104. (Mus. Brit.)

SCALARIA STRIATA. *Sea, testâ angustâ, ovatoâ, imperforatâ, spirâliter striatâ striatâ, albâ, nodis compressis; varicibus contiguis, subcompensatis; suturem carinatâ, carinâ; varicibus rotundis.*

THE STRIATED SCALARIA. Shell narrow, acuminated, imperforate; spirally minutely striated, whitish, brown in the middle of the whorls; whorls contiguous, rather compressed, keeled at the suture and grooved; varices rounded, very infrequent.

HINDS. Proc. Zool. Soc., 1843.

Hab. Malacca.

A *Trochæta*-like species, deeply grooved at the suture.

Species 105. (Mus. Brit.)

SCALARIA SILLIUS. *Sea, testâ parvâ, angustâ; lateribus spirâliter minutissimè striatâ, fuscâ; anfractibus contiguis, testâ excavatis; varicibus laminais, carinâ, minuto crenatis.*

THE SILLI SCALARIA. Shell small, narrow, spirally very minutely striated, brown; whorls contiguous, slowly increasing; varices laminae, close, minutely crenulated.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Isle Canguing and Corceidor, Philippines.

A most delicately sculptured little species.

Species 106. (Mus. Brit.)

SCALARIA FUSCA. *Sea, testâ clavatâ, acuminatâ, elongatâ, imperforatâ, fuscâ, flammis castaneis longitudinalibus parvis, spirâliter tenuissimè striatâ; anfractibus novem, subrotundis; ultimo infra obscurè carinatâ.*

THE BROWN SCALARIA. Shell elevated, acuminated, elongated, imperforate, brown, painted with longitudinal flames, spirally very finely striated; whorls nine, a little rounded; last whorl keeled.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch. Sclalaria, fig. 138.

Hab. Sierra Leone.

Species 107. (Fig. a, b.)

SCALARIA GREENLANDICA. *Sea, testâ clavatâ, crassa, spirâliter distanter subrotâ; anfractibus contiguis, lateribus subcompressis; varicibus simultim arcuatis, decumbentibus, ad suturam elevatis, cepensis; apertura subtriangulâ.*

THE GREENLAND SCALARIA. Shell elongated, thick, spirally distantly grooved; whorls contiguous, laterally rather compressed; varices simultaneously curved, decumbent, raised and expanded at the suture; aperture subtriangular.

CHEMNI. Chemn. II., p. 155, f. 1878-79.

Hab. Newfoundland, Greenland.

Species 108. (Mus. Metcalfe.)

SCALARIA UNIFLATA. *Sea, testâ tenui, subpyramidatâ, anfractibus posticè subrotundis, spirâliter striatis, superâ leviter costatis, infra plumbeis, carinâ obtusâ cinctis.*

THE WAULD SCALARIA. Shell thin, rather pyramidal, whorls a little attenuated above, spirally striated, slightly ribbed above, rather flattened beneath; encircled with an obtuse keel.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. — ?

A light species belonging to the same group as *Scalaria granulosa*.

SCALARIA.—PLATE XIV.

Species 109. (Mus. Brit.)

SCALARIA INDISTINCTA. *Sea. testâ solidiusculâ, elevatâ, imperforatâ, spiraliter tenuissimè striatâ, longitudinaliter creberrimè costatâ; aperturâ subrotundâ.*

THE INDISTINCT SCALARIA. Shell rather solid, raised, imperforate, spirally very finely striated; longitudinally very finely ribbed; aperture rather rounded.

SOWERBY. Proc. Zool. Soc., 1842.

Hab. Gulf of California.

Species 110. (Fig. a, b, Mus. Nobis.)

SCALARIA NUDA. *Sea. testâ breviter pyramidatâ, crassâ, lævigatâ; leviter costellatâ, infra subplanulatâ, varicibus rarissimis distantissimis armatâ.*

THE BARE SCALARIA. Shell shortly pyramidal, thick, smooth; lightly ribbed, partly flattened below, armed with very rare, distant varices.

SOWERBY.

Hab. — ?

Lately in the collection of Mr. A. Adams.

Species 111. (Mus. Adams.)

SCALARIA SUBNUDATA. *Sea. testâ parvâ, tenui, pyramidatâ, spiraliter tenuissimè striatâ; varicibus tenuibus, laminatis, ad suturam et infra expansis, molio anfractuorum fere caudis.*

THE HALF-BARE SCALARIA. Shell small, thin, pyramidal, spirally very finely striated; varices thin, laminar, expanded at the suture and below, almost disappearing at the middle of the whorl.

SOWERBY.

Scalaria delicatula, H. Adams, Proc. Zool. Soc., 1865.

Hab. Philippines.

A pretty little species, the thin varices of which almost disappear in the middle of the whorls. The description of this shell as *Scalaria delicatula*, was published in the proceedings of the Zoological Society in the year following that in which *S. delicatula*, Crossé, appeared in the Journal de Conchyliologie.



11. a



11. b



11. c



11. d



11. e



11. f



11. g



11. h



11. i



11. j

SCALARIA.

PLATE XV.

Species 112. (Mus. —? Copied.)

SCALARIA SCUTATA. *Sea, testa rotata, lutea, leviter, foveis, rugulosis; varices numerosis; costis inaequalibus, aperturam subquadrata, columella angustata, obliqua, etiam prope suturam angulata.*

THE TURRETED SCALARIA. Shell pyramidal, short, turritid, brown, imperforate; whorls turritid; varices thick, nearly angular near the suture; intercostal narrow; aperture subquadrate, columella narrow, outer lip angulate near the suture.

HINDS, Proc. Zool. Soc., 1843.

Hab. Straits of Malacca.

Species 113. (Fig. a, b, Mus. —? Copied.)

SCALARIA VAGINA. *Sea, testa pirata, foveis, costis, spiralis; testis usque aditus convexis; varices rotatis, et costis, obliqua, etiam prope suturam angulata.*

THE FOX SCALARIA. Shell small, brown, thick, spirally striated; whorls convex; varices rounded, thick; last whorl encircled below with a keel; aperture ovate, outer lip thick.

HINDS, Proc. Zool. Soc., 1843.

Hab. Straits of Malacca.

Species 111. (Fig. a, b, Mus. Brit.)

SCALARIA DEPRESSATA. *Sea, testa elongata, leviter, anfractibus superioribus angulatis, infra carinatis, luteis spiribus et costis laevibus, lamellatis, longitudinalibus decussatis.*

THE DEPRESSATED SCALARIA. Shell elongated, turritid, whorls narrow above, keeled below, decussated with spiral ridges and fluted laminated longitudinal ribs.

LAMACK, Anim. sans vert.

Scalaria cancellata, Ham. & Leys.

Hab. Mauritius.

Species 115. (Mus. Nobis.)

SCALARIA DELICATULA. *Sea, testa leviter, acuminata, minutissime spirally striata; anfractibus numerosis, rotatis; costis inaequalibus, pleuraeque lamellis, annulis incassatis, ad suturam simplicibus, ultimo anfractu carinae parva, distincta evecta.*

THE DELICATE SCALARIA. Shell thin, acuminated, very minutely spirally striated; whorls numerous, rounded; ribs unequal, for the most part lamellar, some thickened, simple at the suture, last whorl encircled with a small distinct keel.

CROSSI, Journ. de Conch., 1861.

Hab. Australia.

Species 116. (Mus. Nobis.)

SCALARIA ALLEGATA. *Sea, testa angusta, attenuata, imperforata; anfractibus rotatis, suturae perforata; varices crassiusculis, prominulis, distinctibus, oblique continuis.*

THE ATTENUATED SCALARIA. Shell narrow, attenuated, imperforate; whorls round, suture deep; varices rather thick, prominent, distant, obliquely continuous.

SOWLEY.

Hab. —?

More attenuated than *Scalaria Philippinorum*, with the varices more distant.

Species 117. (Fig. a, b, Mus. Barclay.)

SCALARIA LAEVEASCATA. *Sea, testa late pyramidata, perforata, alba, et pallide fulva, foveis tribus foveis, mediani lata, spirally striata; anfractibus rapide crassatis, rotatis; varices numerosis, tenues, lamellatis, ad suturam simplicibus.*

June, 1874.

SCALARIA.—PLATE XV.

THE BROAD-BANDED SCALARIA. Shell broadly pyramidal, perforated, white, or pale fulvous, spirally painted with three brown bands, the middle one broad; whorls rapidly increasing, rounded; varices numerous, thin, laminar, simple at the sutures.

SOWEBY.

Hab. Mahebourg, Mauritius.

Collected by Sir David Barclay on sandy mud. In the white variety the very slightest indication of brown bands may be detected. The *Scalaria trifasciata* of the Thesaurus is a much shorter shell and the bands are linear.

Species 118. (Mus. Nobis.)

SCALARIA TENUIRATA. *Sea. testâ parvâ, perforatâ, latè pyramidatâ, inter varices lœvigatâ, purpurio-fusâ; anfractibus sex, rapidè crescentibus, rotundis, suturâ profundâ; varicibus evanescentibus, inæqualibus, tenuibus, reflexis, rotundatis.*

THE THIN RIDGED SCALARIA. Shell small, perforated, broadly pyramidal, smooth, purple-brown between the varices; whorls six, rapidly increasing, rounded with deep suture; varices very close, unequal, thin, reflected, rounded.

SOWEBY.

Hab. Japan.



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136

SCALARIA.

PLATE XVI.

Species 119. (Fig. a, b, Mus. Brit.)

SCALARIA MULTISEPTATA. *Sea, testâ parvâ, clavata, spirâliter testatâ in stratis; anfractibus novem, subrotundis, oblongatis, subobliquè costellatis; varicibus numerosis, longis, continuatis, ad suturam in angulo a centro costis.*

THE MANY-SEPTATE SCALARIA. Shell small, raised, spirally very finely striated, whorls nine, rather rounded, slowly increasing; varices very numerous, laminate, standing out, elevated in a sharp angle at the suture.

SV. Amer. Journ. Sci.

Scalaria pulchella, Blyen.

Hab. North America.

The three small species with minute striae, somewhat resembling each other, may thus be distinguished. *Scalaria dilatata* has the fine varices rounded at the suture, and it is very narrow. *Scalaria subangulata* has them raised at the sutures and almost obsolete at the centre of the whorl, and *Scalaria costellata* has them raised in an acute angle at the sutures and by no means thinned away in the centre.

Species 120. (Fig. a, b, Mus. Brit.)

SCALARIA CRASSILABRUM. *Sea, testâ albidâ, imperforatâ, elongatâ, spirâliter minutè striatâ; anfractibus septem, triangulatis, subobliquè costellatis; varicibus nullis; apertura subrotundâ, margine crasso, expanso, minuto striato.*

THE THICK-LIPPED SCALARIA. Shell nearly white, imperforate, elongated, spirally very minutely striated; whorls seven, triangular, rather obsoletely ribbed; varices none; aperture rather rounded; with thick, expanded, minutely striated margin.

SOWERBY. Thesaurus Conchyliorum. *Scalaria*, sp. 87, fig. 115, 116.

Hab. Philippines. Central America.

Species 121. (Fig. a, b, Mus. Brit.)

SCALARIA INDEFINISSIMA. *Sea, testâ albâ, tenui, pyrâmidatâ, perforatâ, spirâliter minutissimè striatâ; anfractibus circâ novem, subquadriè crescentibus, ad suturam emarginatis; varicibus interpedalis, tenuibus, existimè crassioribus, convexè undulatis, prope suturam aculeatis; umbilico parvo; apertura subovata, margine columellari tenui, sinuato, margine exteriori superè ereolato, prope suturam aculeato.*

THE MUCH-WAVED SCALARIA. Shell white, thin, pyramidal, perforated, spirally very minutely striated; whorls about nine, rather quickly increasing; channelled near the suture; varices unequal, thin, very rarely thicker, neatly undulated, aculeated near the suture; umbilicus small; aperture subovate, columellar margin thin, sinuous, outer margin ereolated above, aculeated near the suture.

SOWERBY.

Hab. — ?

M. Nyst publishes in his "Tableau Synoptique," a fossil species in which the varices are undulated; something the same manner, but more coarsely than in this shell. I know of no other example of this beautifully delicate sculpture.

Species 122. (Fig. a, b, Mus. Nobis.)

SCALARIA JAPONICA. *Sea, testâ parvâ, albâ, levigatâ, imperforatâ; anfractibus rotundis, vicè continuis; varicibus laminatis, solidè costatis, subobstantibus, obliquè continuatis.*

THE JAPAN SCALARIA. Shell small, white, smooth, imperforate; whorls rounded, scarcely touching; varices laminar, rather solid, a little distant, obliquely continuous.

NYST. Tab. Syn. 1871.

Scalaria elegans, A. Adams.

Hab. Japan.

June, 1874.

Species 123. (Mus. Nodis.)

SCALARIA MÖRCHII. *Sea. testâ parvâ, albâ, angustâ, spirâliter densè striatâ; anfractibus numerosis, lentè crescentibus; varicibus erectissimis, crassissimis, ad suturam parvò crenatis.*

MÖRCH'S SCALARIA. Shell small, whitish, narrow, spirally closely striated; whorls numerous, slowly increasing; varices very close, rather thick, a little expanded at the suture.

ANGAS. —?

Hab. —

Species 124. (Mus. Barclay.)

SCALARIA ABBREVIATA. *Sea. testâ brevi, crassâ, subcarabâ, imperforatâ, spirâliter sulcatâ, costis planulatis, undulatis, uno latere angulatim laevigatis, ad suturam aculeatis, ad carinam inferiorem prominentibus ornatâ; interstitiis ad suturam et ad carinam profundè foveolatis; anfractibus paucis, superè subdepressis; ultimo anfractu infra carinam, ad marginem aperturae incrassato; varicibus magnis, crassis, crenulatis, porpaciis; apertura subrotundâ, marginè crasso, crenato.*

THE ABBREVIATED SCALARIA. Shell short, thick, bluish, imperforate, spirally grooved, ornamented with flattened, undulated ribs, angularly fluted on one side, aculeated at the suture, prominent at the lower keel; interstices deeply sloped above; last whorl keeled below, thickened at the edge of the aperture; varices large, thick, crenulated, very few; aperture rather round, margin thick, crenated.

SOWERBY.

Hab. Tamarinid Bay, near Black River, Mauritius.

This is figured in Thesaurus as a variety of *Scalaria varicosa*, from which subsequent examination compels me now to distinguish it.

Species 125. (Mus. Sir D. Barclay.)

SCALARIA MULTIPERFORATA. *Sea. testâ pallidè fulvâ, acuminatâ, costis latis, decumbentibus, undulatis, uno latere angulatim laevigatis sculptâ; interstitiis, concinnè foveolatis; anfractibus compressis, ad suturam canaliculatis, aculeis divotis coronatis; ultimo anfractu infra carinam, ad carinam foveolato; varicibus parvâ, irregularibus, crassis, prominentibus, ad suturam elevatis, productis.*

THE MANY-HOLED SCALARIA. Shell pale, fulvous, acuminated, sculptured with broad, decumbent, undulated ribs, angularly fluted on one side; interstices neatly pitted; whorls compressed, channelled at the suture, crowned with raised points; last whorl keeled below, pitted at the keel; varices very few, irregular, thick, prominent, raised and produced at the suture.

SOWERBY.

Hab. Black River Bay, Mauritius.

The sculpture of this little shell is exquisite, the flattened ribs being fringed on one side with an angular fluting which leaves little distinct perforations against the back of the adjoining rib. There is an obsolete tendency to the same arrangement of sculpture in *Scalaria varicosa* and *S. abbreviata*, which belong to the same group, but are not nearly so narrow and acuminated, and have not the whorls so laterally compressed.

(Fig. 3, 4, Pl. II. Mus. Sir D. Barclay.)

SCALARIA KARISICOSTATA. This exquisite specimen was dredged by Sir David Barclay, Bart., off Round Island, Mauritius. The ordinary specimens give no idea of the beautiful sculpture which belongs to the shell when in perfect condition. Besides the four larger ribs which in this specimen are crowded in the last whorl, the whole shell is sculptured with fringed and aculeated lesser varices.

S C A L A R I A.

	Plate.	Species.		Plate.	Species.
abbreviata, <i>Sowerby</i>	XVI.	124	<i>oleopus</i> , A. Adams	XVI.	122
aciculina, <i>Hinds</i>	XIII.	98	Elonensis, <i>Sowerby</i>	XIII.	102
aeuleata, <i>Sowerby</i>	VII.	46	Eschrichti, <i>Holboell</i>	XI.	83
acuminata, <i>Sowerby</i>	X.	74	eximia, <i>Adams & Reeve</i>	XII.	87
alata, <i>Sowerby</i>	III.	15	fasciata, <i>Sowerby</i>	III.	13
albolineata, <i>Sowerby</i>	VIII.	57	<i>finbrata</i> , <i>Lamarck</i>	II.	11
angulata, <i>Say</i>	III.	14	fragilis, <i>Houley</i>	V.	29
attenuata, <i>Poese</i>	X.	71	fratilis, <i>Sowerby</i>	VIII.	52
<i>attenuata</i> , <i>Sowerby</i> (by error)	XV.	116	fusca, <i>Sowerby</i>	XIV.	106
aurita, <i>Sowerby</i>	V.	30	Georgettina, <i>Kiener</i>	V.	36
Australis, <i>Lamarck</i>	I.	3	glabrata, <i>Hinds</i>	XIII.	99
Bairdii, <i>Smith</i>	X.	72	gracilis, <i>Sowerby</i>	VIII.	53
bicarinata, <i>Sowerby</i>	VIII.	60	<i>gracilis</i> , A. Adams	X.	70
borealis, <i>Gould</i>	X.	75	gradata, <i>Hinds</i>	I.	2
bulbilus, <i>Sowerby</i>	IX.	62	granulata, <i>Quoy</i>	V.	35
bullata, <i>Sowerby</i>	II.	8	Grælandica, <i>Chemnitz</i>	XIV.	107
<i>caucellata</i> , <i>Humphreys</i>	XV.	114	hexagona, <i>Sowerby</i>	IV.	27
causta, A. Adams	XI.	86	<i>Hampdeniana</i> , <i>Kiener</i>	III.	14
Catantensis, <i>Sowerby</i>	IX.	67	hyalina, <i>Sowerby</i>	VI.	41
clathratula, <i>Montagu</i>	VIII.	54	immaculata, <i>Sowerby</i>	IV.	24
clathrus, <i>Liou</i>	V.	33	imperialis, <i>Sowerby</i>	I.	6
<i>clathrus</i> , <i>Gmel.</i>	I.	5	incompleta, <i>Sowerby</i>	VIII.	58
cochlea, <i>Sowerby</i>	XII.	90	Indianorum, <i>Carpenter</i>	XI.	81
communis, <i>Lamarck</i>	I.	5	irregularis, <i>Sowerby</i>	IV.	26
concinna, <i>Sowerby</i>	VII.	50	indistincta, <i>Sowerby</i>	XIV.	109
connexa, <i>Sowerby</i>	XIII.	95	Japonica, <i>Nyst</i>	XVI.	122
continuata, <i>Sowerby</i>	XV.	115	Jukesiana, <i>Forbes</i>	XI.	80
coronata, <i>Lamarck</i>	V.	34	lactea, <i>Krauss</i>	XII.	93
costulata, <i>Kiener</i>	III.	12	<i>Loeblii</i> , <i>Lamarck</i>	V.	33
crassa, <i>Sowerby</i>	IV.	25	latifasciata, <i>Sowerby</i>	XV.	117
crassicostata, <i>Sowerby</i>	XIII.	94	laxata, <i>Sowerby</i>	VI.	38
crassilabrum, <i>Sowerby</i>	XVI.	120	lineata, <i>Say</i>	VIII.	56
creberrima, <i>Hinds</i>	IX.	69	linesolata, <i>Sowerby</i>	V.	32
crenata, <i>Liou</i>	III.	19	lyra, <i>Sowerby</i>	IV.	25
curvilineata, <i>Sowerby</i>	VII.	49	maculosa, <i>Adams and Reeve</i>	XIII.	103
depressa, <i>Lamarck</i>	XV.	114	Mazellanica, <i>Philippi</i>	XI.	82
delicatula, <i>Crosse</i>	XV.	115	magnifica, <i>Sowerby</i>	II.	10
<i>delicatula</i> , H. Adams	XIV.	111	maruorata, <i>Sowerby</i>	III.	16
denticulata, <i>Sowerby</i>	VI.	42	Martini, <i>Wood</i>	III.	20
dindema, <i>Sowerby</i>	XI.	84	Minoricensis, <i>Sowerby</i>	IX.	66
Diane, <i>Hinds</i>	XII.	89	minor, <i>Sowerby</i>	X.	70
dubia, <i>Sowerby</i>	VII.	45	naranda, <i>Smith</i>	X.	73

SCALARIA.

	Plate.	Species.		Plate.	Species.
mitradiformis, <i>Sowerby</i>	VI.	44	pyramidalis, <i>Sowerby</i>	III.	17
modesta, <i>C. B. Adams</i>	XI.	78	raricostata, <i>Lamarck</i>	II. & XVI.	9
monocycla, <i>Keiser</i>	V.	33	raricostata, <i>Lamarck</i>	III.	20
Mordaxii, <i>Angus</i>	X. XVI. sp.	76, fig. 123	replicata, <i>Sowerby</i>	VI.	39
multicostata, <i>Sowerby</i>	IX.	65	rubrolineta, <i>Sowerby</i>	IX.	64
multi perforata, <i>Sowerby</i>	XVI.	125	similis, <i>Sowerby</i>	IX.	63
multistriata, <i>Say</i>	XVI.	119	statuimata, <i>Sowerby</i>	III.	18
muricata, <i>Keiser</i>	VI.	43	striata, <i>Keiser</i>	III.	20
neglecta, <i>Adams and Reev.</i>	I.	1	subtilis, <i>Sowerby</i>	XIV.	105
nodosa, <i>Carpenter</i>	I.	2	subundata, <i>Sowerby</i>	XIV.	111
Noxanglia, <i>Cuthbert</i>	XIII.	100	sulcata, <i>Sowerby</i>	XIII.	97
nuda, <i>Sowerby</i>	XIV.	110	suturalis, <i>Hinds</i>	XIV.	104
obesa, <i>Sowerby</i>	IV.	22	tenuicostata, <i>Sowerby</i>	V.	31
obliqua, <i>Sowerby</i>	VII.	51	tenuilirata, <i>Sowerby</i>	XV.	118
obtusa	VII.	48	tenuis, <i>Sowerby</i>	VI.	37
optabilis, <i>A. Adams</i>	XI.	85	Trevelyana, <i>Loebel</i> ?	XII.	92
ovalis, <i>Sowerby</i>	XIII.	96	trifasciata, <i>De Haen</i>	VII.	47
Pallasii, <i>Keiser</i>	VI.	40	trifasciata, <i>Keiser</i>	V.	32
perplexa, <i>Pease</i>	XII.	91	scalaris, <i>Linnaeus</i>	I.	4
Philippinarum, <i>Sowerby</i>	IV.	21	turricula, <i>Sowerby</i>	VIII.	59
planicostata, <i>Bivon</i>	II.	7	Turtonis, <i>Risso</i>	II.	7
polita, <i>Sowerby</i>	X.	77	undulata, <i>Sowerby</i>	XIV.	108
porrecta, <i>Hinds</i>	XV.	112	undulatissima, <i>Sowerby</i>	XVI.	121
pretiosa, <i>Lamarck</i>	I.	4	unicostata, <i>Sowerby</i>	VIII.	55
principalis, <i>Martini</i>	III.	12	unifasciata, <i>Sowerby</i>	IV.	28
principialis, <i>Chemnitz?</i>	II.	10	varicosa, <i>Lamarck</i>	II.	11
pulchella, <i>Bivon</i>	XVI.	119	venosa, <i>Sowerby</i>	IX.	61
pumilla, <i>A. Adams</i>	XI.	79	vestalis, <i>Huals</i>	XIII.	101
pulcherrima, <i>Sowerby</i>	IX.	68	vulpina, <i>Hinds</i>	XII. XV. sp.	88, fig. 113

MONOGRAPH
OF THE GENUS
CUMINGIA.

(Family of *Utriculariadae* - *Mosses*.)



1



2a



2b



3



4



5



6

CUMINGIA —PLATE I.

larly concentrically laminated, lamina standing out, some broad.

SOWLEBY, Proc. Zool. Soc., 1853.

Hab. Chili?

The most irregularly laminated of all the species, and the most triangular in form.

Species 5. (Mus. Brit.)

CUMINGIA LAMELLOSA. *Con. testa oblonga, copiositer concentricè laminatà, lamina angustibus, distantibus, distantibus; latera antica brevia, rotunda; latera postica angulata, acuminata, subcostata, marginem caeterè perpe terminum contracto; marginem dorsali declivi.*

THE LAMELLAE CUMINGIA. Shell oblong, regularly concentrically laminated, laminae narrow, standing out, distant; anterior side short, rounded; posterior side angular, acuminate, subcostated;

ventral margin contracted near the end; dorsal margin sloped.

SOWLEBY, Proc. Zool., 1853.

Hab. Chili.

Species 6. (Mus. Brit.)

CUMINGIA SMITHI. *Con. testa ovato-subtriangul, lateribus, laminae paucis concentricè ornata; latera antica inflata, rotunda; latera postica rostrata, ad terminum marginis ventralis subacuminata.*

THE SIMILAR CUMINGIA. Shell ovate-subtriangular, smooth, ornamented with few concentric laminae; anterior side inflated, rounded; posterior side beaked slightly, acuminate at the end of the ventral margin.

A. ADAMS, Proc. Zool. Soc., 1850.

Hab. N.W. Coast of America.

Differing from the preceding species chiefly in the form and irregularity of the laminae.



72



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74



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76



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78



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80



81

CUMINGIA.

PLATE II.

Species 7. (Fig. 5, Mus. Brit.)

CUMINGIA CUMINGIA. *Cum. testa parvè, ovata, subcompressa, striata, concentricè ribrida; latera antica brevissimè, declivè, obtusè, subangulata; latera postica dilatata, subangulata, subcompressa, contracta.*

THE CONTOUR OF CUMINGIA. Shell small, regularly cono-rotundly ribbed, very slightly flattened, gradually narrowed to the apex; anterior side moderately inflated, posteriorly subcompressa, contracted, sloped downward, subangulated at the end of the ventral margin.

SOWERBY, Proc. Zool. Soc., 1850.

Hab. Philippines.

Species 8. (Fig. 6, Mus. Brit.)

CUMINGIA ANHILABUM. *Cum. testa parvè, ovata, subcompressa, concentricè lamellata, subangulata, declivè, subangulata; latera antica brevissimè, declivè, subangulata; latera postica subcompressa, contracta.*

THE ANHILABUM CUMINGIA. Shell small, thin, minutely regularly cono-rotundly lamellated, somewhat ovate, or subtriangular; posteriorly rather subangulated.

A. ADAMS, Proc. Zool. Soc., 1850.

Hab. West Indies.

Species 9. (Mus. Hargrave's.)

CUMINGIA ELEGANS. *Cum. testa parvè, oblique subangulata, elegantè striata, concentricè lamellata; latera antica brevissimè, declivè, subangulata; latera postica subcompressa, contracta, ante angulum contracta.*

THE ELEGANT CUMINGIA. Shell small, obliquely sub-ovate, elegantly closely concentrically ribbed; anterior side rather short, rounded, inflated; posterior side rather angular, contracted in front of the angle.

SOWERBY.

Thyella humilior, H. Adams.

Hab. Australia.

The want of developed lateral teeth in either valve has caused the separation of this and other species from the genus; and in replacing it we are obliged to apply a new specific name, that of *humilior* being previously occupied in *this* genus.

Species 10. (Mus. Brit.)

CUMINGIA VENTRICOSE. *Cum. testa solida, compressa, striata, concentricè striata, brevè, inflata; latera antica dilatata, ventricosa, latera postica acuminata, declivè.*

THE VENTRICOSE CUMINGIA. Shell solid, banded with pale rose, very minutely striated, short, inflated; anterior side rounded, ventricose; posterior side subangulated, sloped downward.

SOWERBY.

Hab. Probably Chili.

Much shorter and more inflated than *Cumingia cauta*.

Species 11. (Mus. Brit.)

CUMINGIA GLANDIS. *Cum. testa solida, albè, opaca, subcompressa, dilatata; latera antica brevissimè, declivè, subangulata; latera postica rotunda, compressa, subdeclivè, acuminata.*

THE LARGE CUMINGIA. Shell solid, white, opaque, sub-compressed, dilated; anterior side rather short, rounded; posterior side beaked, compressed, much sloped, acuminated.

DESHAYES.

Hab. Chili.

A species of very dilated and rather flattened form, but quite possibly a variety of *Cumingia mutica*.

Species 12. (Mus. Hargrave's.)

CUMINGIA HARGRAVEI. *Cum. testa parvè, subquadrata, laevi; latera antica brevissima, declivè, obtusa,*

CUMINGIA.—PLATE II.

inflata: *luteo*, *postice rotundè acuminatè rostrato*,
margine centrali antè rostrum contracto, margine
dorsali eadè declivè.

HARGREAVE'S CUMINGIA. Shell small, subquadrate,
 smooth; anterior side very short, sloped, obtuse,
 inflated; posterior side strongly beaked with a
 curve, ventral margin contracted in front of the
 beak, dorsal margin much sloped.

H. ADAMS (Thyella). Proc. Zool. Soc., 1873.

Hab. New Hebrides.

The writer has not seen the type of Mr. Adams's genus
 THYELLA. The two species included in this monograph

of *Cumingia* are all which the genus contains excepting
 the type.

Species 13. (Fig. *a, b*, Mus. Brit.)

CUMINGIA CALIFORNICA. *Cum. testâ irregulariter lamel-*
losâ, postice cuneatâ, brevi; antice inflatâ, expansâ,
margine dorsali elevato, ventrali convexo.

THE CALIFORNIAN CUMINGIA. Shell irregularly lamel-
 lated, posteriorly cuneate, short; anteriorly inflat-
 ed, expanded with the dorsal margin elevated,
 ventral margin convex.

CONRAD, JOURNAL, A. N. S. Phil., vol. vii, pl. 17, f. 12

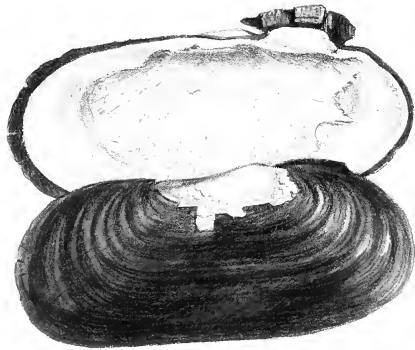
Hab. California

MONOGRAPH

OF THE GENUS

GLYCIMERIS.

“O'er the deep—o'er the deep,
Where the whale and the shark, and the sword-fish sleep.”—*Betty Cornwall*



1^a



1^b

GLYCIMERIS.

PLATE I.

Genus GLYCIMERIS, *Lesauv?*

Testa transversè oblonga, bicostis, hianscutosa, apicaliter, crassa, epidermide nigra cornea induta; margine cardinali edentata. Ligamentum magnum externum fulcrum magnum externum. Impressiones musculares compleri, palli irregulariter integere.

Shell transversely oblong, bivalve, bimuscular, equivalve, thick, covered with a black, horny epidermis; hinge margin toothless. Ligament large, external. Muscular impressions complex, that of the mantle irregularly entire.

SYN. *Cyrtoloma*, Daudin.

The single species which composes this genus, presents an assemblage of characters which make it difficult to determine its place. Having neither internal cartilaginous pit nor appendage, it certainly does not belong to the genus *Mya*, with which it was formerly united. Yet, as in *Mya*, *Pisopora*, &c., the parts of the animal not covered by the shell are provided with a wrinkled coriaceous covering. It is a mollusc of littoral habits and, as might be suggested by its appearance, belongs to northern and arctic seas. In the general characters of the shell it seems, with *Schizocoma*, to approach the family of *Schizocoma*.

Species I. (Mus, Sowerby.)

GLYCIMERIS. Siliqua. *Gly. testâ oblongâ, crassâ, utriusque hianscutis, costis epidermide crassâ, nigra, obliquè rugatâ indutâ; intus calcareâ, irregulariter incrassatâ et lacertatâ; latere postico hecristisculo margine dorsali semilunari; medio compresso, margine ventrali rectisculo; cardine edentatâ, fulcro ligamentifero marino.*

THE SMALL GLYCIMERIS. Shell oblong, thick, gaping on both sides, covered outside with a thick, black epidermis, obliquely wrinkled; calcareous within, irregularly thickened and jagged; posterior side rather the shorter, dorsal margin semilunar; middle compressed, ventral margin rather straight; hinge toothless, ligamentiferous fulcrum very large.

LAMOUR. *Anna. sans Vert.*, vol. vi. p. 69.

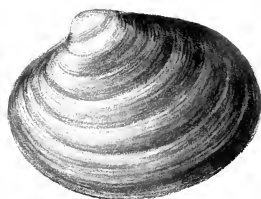
Mya pavo, Wood.

Hab. Arctic Coasts.

The so-called *Glycimaris arctica* and *Glycimaris edentata* do not belong to this genus. The first is a *Pisopora*.

MONOGRAPH
OF THE GENUS
C Y P R I N A.

‘Have I not heard thee roar, puff’d up with wind,
Rage like an angry boar?’—*Shakspeare*



1^a



1^b

MONOGRAPH

OF THE GENUS

ANATINELLA.

Some species of *Anatinea* are
So like each other, that they
Yet attempt to separate
In the sea, beneath the *Boa*.



19



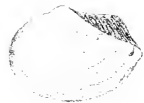
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22

ANATINELLA.—PLATE 4

Species 4. (Mus. Brit.)

ANATINELLA DELAIAE. *Ant. testâ ovata, subcompressa, alvatis mic. striatâ; later. postio. longiuscula, oblique cuneata, post. et imm. latè truncata, dilatata, subangulâ; margin. ventrali convexa; later. antio. breviuscula, rotunda.*

THE DILATED ANATINELLA. Shell ovate, subcompressa, minutely striated; posterior side rather the

longer, obliquely keeled, broadly truncated behind the keel, dilated, slightly wrinkled; ventral margin convex; anterior side rather short, rounded.

A. ADAMS. Proc. Zool. Soc., 1851, p. 11.

Hab. Putero, Philippines.

More compressed and broader posteriorly than the other species.

MONOGRAPH
OF THE GENUS
PLICATULA.

“What is the history of the genus *Plicatula*?”
The author is a student of the University of Illinois.



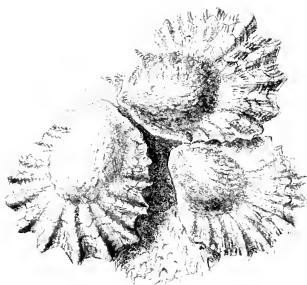
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2



3



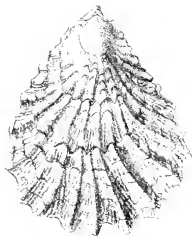
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5



6



7

PLICATULA.

PLATE I.

Genus PLICATULA, Lamour.

Testa uniusculosa, inequivalvis, plicata, irregularis, per apicem valvæ dextræ adhaerens; umbones inequalis, eiv arcuata; area cardinalis, in valvâ dextrâ parva; dentes cardinales utriusque valvæ duo, divergentes transverse striatâ; fossula ligamentifera inter dentes utriusque valvæ trigona.

Shell with a single muscle, inequivalve, plaited irregular, fixed by the apex of the right valve; umbones unequal, scarcely articulated; cardinal area in the right valve small; two divergent, transverse, cardinal teeth in each valve striated transversely; a trigonal ligamentiferous pit in each valve between the teeth.

Plicatula is a well defined genus of shells always to be recognised by the teeth and folds. Eight species were described in the latest Monograph, that of the *Thesaurus* by Sowerby. Of the remaining five, two have been described since, and three are here presented.

The Philippines, Australia, New Zealand, and the shores of Western America furnish all the species described in this Monograph, with the exception of *Plicatula Cydonia*, and the little *Plicatula simplex* from China.

Species 1. (Mus. Brit.)

PLICATULA NOÛVE ZÉLANDE. *Pl. testâ tenui, albâ, depressâ, ad laterâ fossatâ; plicis numerosis, obtusis hinc illâ divisâ, ad marginem dentif. rotatis.*

THE NEW ZEALAND PLICATULA. Shell thin, white, depressed, leafy at the sides; plaits numerous, obtuse, here and there divided, dentiform at the margin.

SOWERBY.

Hab. New Zealand.

The ribs are so divergent, that those near the dorsal margin are at right angles with the central.

Species 2. (Mus. Brit.)

PLICATULA SIMPLEX. *Pl. testâ parvâ, gibbâ, crassâ, rectiusculâ, subovatâ, fusco-subnervâ, nonnuncquam*

striatâ; plicis parvis, profundis, angulatis simplicibus.

THE SIMPLE PLICATULA. Shell small, gibbous, thick, rather straight, somewhat ovate, of a golden brownish colour, sometimes striped; plaits few, deep angular, simple.

GOTTL. —?

Hab. China.

The few plaits of this apparently distinct species do not diverge to any extent, and consequently the shell has a rather straight oval appearance.

Species 3. (Mus. Brit.)

PLICATULA FUSCILLATA. *Pl. testâ parvâ, tenui, irregulariter ovatâ, empositâ, acutâ, aculeatâ, lineis parvis, brevibus, costatis, notatâ; plicis prope marginem unius, eiv brevibus; marginem valvæ dextræ irregulariter denticulatâ.*

THE FUSCILLATED PLICATULA. Shell small, thin, irregularly ovate, rugose, minutely aculeated, marked with small short chestnut lines; plaits very small, very close near the margin; margin of the left valve irregularly denticulated.

CARLENE.

Hab. North America.

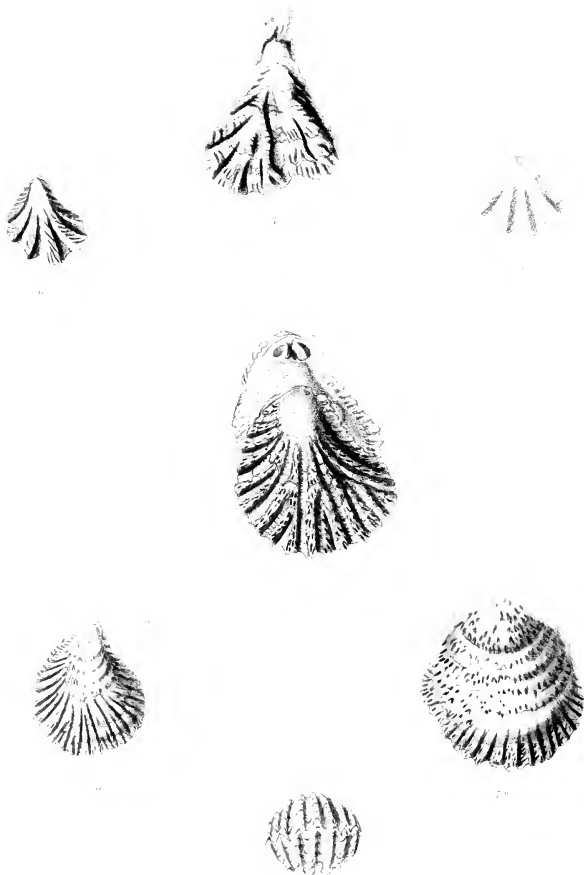
Species 4. (Mus. Brit.)

PLICATULA IMBRICATA. *Pl. testâ magnâ, subtriangulâ, solidâ, albâ, vel cinamonâ, lineis brevibus, divaricatis, rubescentibus notatâ; plicis magnis, acutè angulatis divaricatis, rarè divisâ; plerumque super angulum imbricatis.*

THE IMBRICATED PLICATULA. Shell large, subtriangular, solid, whitish, or cinnamon, marked with short divergent reddish lines; plaits large, acutely angular, divergent, rarely divided; generally imbricated on the angle.

MENKE. Moll. Nov. Hollandiæ.

Hab. China, Philippines.—Honduras Bay, &c.



PLICATULA.

PLATE II.

Species 5. (Fig. *a, b, c*, Mus. Brit.)

PLICATULA RAMOSA. *Pli. testâ ponderosa, propè ora
latus plerumque gibbosa, albida; super plicis
lineis maculisque purpureis vel cinamomeis, vel
castaneis notatâ; plicis obtusis medio testâ porosis,
costis marginem in ramis duobus vel tribus fur-
catis, impressione musculari rotundâ, elevatâ;
dentibus cardinalibus foveis; marginem internum
fusco lineato.*

THE BRANCHED PLICATULA. Shell ponderous, generally
gibbous, whitish; plait marked with purple or cin-
namon or chestnut lines and spots; plait few in
the middle of the shell, divided into one or two
branches towards the margin, muscular impres-
sion rounded, elevated; cardinal teeth brown;
inner margin marked with brown lines.

LAMARCK. *Anim. s. Vert.*, vol. vi. p. 184.

Spondylus plicatus? Gmelin.

Plicatula gibbosa (Lamarck). Sowerby. *Genera of Shells*.
Hab. Lord Hood's Island.

There is no other species of *Plicatula* the plaits of
which branch and divide so much as this.

Species 6. (Fig. *a, b*, Mus. Brit.)

PLICATULA CRISTATA. *Pli. testâ parvâ, trigonâ, albida,
plicis nonnunquam lineatim pictis, magnis, acutè
angulatis, perpaucis.*

THE CRISTED PLICATULA. Shell small, trigonal,
whitish, the plaits sometimes linearly painted,
large, sharply angular, very few.

LAMARCK. *Anim. s. Vert.*, vol. vi. p. 185.

Plicatula unifornis, — ?

Hab. Jamaica, A. Adams. Honduras Bay, Mr. Dyson.

A small species of large angular plaits.

Species 7. (Fig. *a, b*, Mus. Brit.)

PLICATULA DEPRESSA. *Pli. testâ solidâ, super costas
fusco lineatâ et maculatâ; plicis obtusis numerosis,
paulò divergentis propè marginem hinc illinc bifur-
catis.*

THE DEPRESSED PLICATULA. Shell solid, lineated and
spotted with brown on plaits; plaits obtuse,
numerous, a little divergent, here and there, near
the margin, bifurcated.

LAMARCK. *Anim. s. Vert.*, vol. vi. p. 185.

Hab. — ?

This species is more numerous and less divergently
plaited than *Plicatula ramosa*. The plaits, although
occasionally divided near the margin, do not branch.
The depression from which the species was named is
probably an accident of growth in both the specimens
figured.



8a



8b



9a



10a



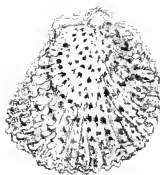
10b



11a



12a



12b



13a

P L I C A T U L A.

PLATE III.

Species 8. (Fig. a, b, Mus. Brit.)

P L I C A T U L A E S S I N G T O N E N S I S. *Pli. testâ magnâ, sub-angulatâ rotâ; plieis numerosis, cinnamomeâ lineatâ; lineatim notatis, divaricatis, raris decussis, aciculatis.*

THE PORT ESSINGTON P L I C A T U L A. Shell large, nearly equilateral; plaits numerous, rather obtuse, minutely linearly marked with cinnamon, divergent, rarely divided, angular.

SO W E R B Y.

Hab. Port Essington, Australia.

The ribs are more numerous, less divergent, and less deep than *Plicatula Philippinensis*.

Species 9. (Fig. a, b, Mus. Brit.)

P L I C A T U L A M U R I C A T A. *Pli. testâ porcis, trigonâ, cinnamomâ, vel albâ, novallis trigonis, subacutatis partâ; plieis echinatis, angulatis muricatis, acutâ sub-aulicatis.*

THE MURICATED P L I C A T U L A. Shell small, trigonal, cinnamon coloured, or white, painted with trigonal partly radiating spots; plaits very numerous, angular, muricated, acutely sub-aulicated.

A. ADAMS. Proc. Zool. Soc.

Hab. — ?

A very pretty, characteristic little species.

Species 10. (Fig. a, c, d, Mus. Brit.)

P L I C A T U L A A U S T R A L I S. *Pli. testâ subrotundâ, depressâ, tenuissimâ, nigro punctatâ; plieis parvis, numerosis, obtusis, divaricatis, comosis, imbricatis, papâ marginem aculeatis.*

THE AUSTRALIAN P L I C A T U L A. Shell roundish, depressed, rather thin, black spotted; plaits small, numerous, obtuse, divergent, branched, imbricated, aculeated near the margin.

LAMARCK. Anim. s. Vert., vol. vi. 85.

Hab. Australia, Lomareck. Philippines, Canning.

The limuliform specimen is only an instance of irregular growth.

Species 11. (Fig. 10, b, Mus. Brit.)

P L I C A T U L A A C U L E A T A. *Pli. testâ albâ, ovatâ, tenui, aculeis forcicatis divaricatis armatâ.*

THE ACULEATED P L I C A T U L A. Shell white, ovate, thin, armed with vaulted prickles.

SO W E R B Y.

Plicatula dubia, var. Sowerby, Thes. Conch.

Hab. — ?

October, 1873.



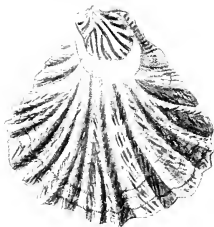
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11



12



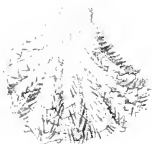
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14



15



16

P L I C A T U L A .

PLATE IV.

Species 12. (Fig. *a, b, c, d, e*, Mus. Brit.)

PLICATULA PHILIPPINARUM. *Pli. testâ magis, solida, pallide fulvâ vel subcaeruleâ, plerumque divaricationibus rubro vel nigro lineatâ; plicis magis, continuâ, nonnunquam divisis, ad angulum rarissimè imbricatis.*

THE PHILIPPINE Plicatula. Shell large, solid, pale fulvous or bluish, generally divergently lineated with red or black; plaits large, continuous, occasionally divided, very rarely imbricated.

HANLEY. Recent Shells.

Hab. Various localities among the Philippine Islands.

The figures will show that this species is subject to the usual irregularities in growth. The plaits are larger, more angular, and less branched than those of *Plicatula ramosa*.

Species 13. (Mus. Brit.)

PLICATULA DUBIA. *Pli. testâ tenui, foliacea, depressâ, subrotundatâ; plicis brevibus, interruptis, irregu- laribus, foliis ceterantibus, ferevatis, truncatis, parvis; colore fuscâ rubescenti, costarum maculato, propè umbones minuti punctato.*

THE DUBIOUS Plicatula. Shell thin, foliaceous, depressed, somewhat rounded; plaits short, inter-

rupted, irregular, with extant vaulted, truncated, few foliations; colour reddish-brown, spotted with chestnut minutely dotted near the umbones.

HANLEY. Recent Shells. Sowerby's Thesaurus, Pl. f. 19. *Hab.* Isl. Samar, Philippines.

The small white shell figured in Thesaurus as *Plicatula dubia* (var.) can scarcely belong to this species. It is probably an irregular form of *Plicatula Australis*.

Species 14. (Mus. Brit.)

PLICATULA CYLONICA. *Pli. testâ solida, subtrigona, pallide cinnamomeâ, postice productâ, acuminatâ, plicis magis, angulatis, raris divaricatis, imbricatis, laevibus divaricatis, brevibus, cinnamomeis super costas notatis.*

THE Ceylon Plicatula. Shell solid, subtrigonal, pale cinnamon, produced posteriorly, acuminate, plaits large, angular, very divergent, imbricated, marked on the ribs with short divergent cinnamon lines.

SOWERBY.

Hab. Ceylon.

The ribs are sharply angular, branched, and imbricated; characteristics which taken in connexion with the widely distant locality prevent our placing the shell as a variety of *Plicatula Philippinarum*.

October, 1873.

PLICATULA.

	Class.	Species.		Class.	Species.
<i>aeuleata</i> , <i>Sowerby</i>	III.	11	<i>flavata</i> , <i>Rochaz</i> , unknown.		
<i>Australis</i> , <i>Lamarck</i>	III.	10	<i>muricata</i> , <i>J. Adams</i>	III.	9
<i>Ceylonica</i> , <i>Sowerby</i>	IV.	14	<i>Noxae-Zelandica</i> , <i>Sowerby</i>	I.	1
<i>cristata</i> , <i>Lamarck</i>	II.	6	<i>penicillata</i> , <i>Carpenter</i>	I.	3
<i>deltoidea</i> , <i>Dunker</i> , unknown.			<i>Philippinarum</i> , <i>Hendley</i>	IV.	12
<i>depressa</i> , <i>Lamarck</i>	II.	7	<i>plicata</i> , <i>Gmelin</i>	II.	5
<i>dubia</i> , <i>Hendley</i>	IV.	13	<i>ramosa</i> , <i>Lamarck</i>	II.	5
<i>Essingtonensis</i> , <i>Sowerby</i>	III.	8	<i>regularis</i> , <i>Philippi</i> , unknown.		
<i>gibbosa</i> , <i>Lamarck</i>	II.	5	<i>rotundata</i> , <i>Lamarck</i>	II.	6
<i>imbricata</i> , <i>Macle</i>	I.	4	<i>simplex</i> , <i>Gmelin</i>	I.	2

MONOGRAPH

OF THE GENUS

EMARGINULA.

"Full many a gem of purest ray serene
In dark unfathom'd caves of ocean born"—*Geog.*



1a



1



1c



1d



2a



2



2c



2



2



2d

EMARGINULA.—PLATE I.

raised, fissure inconspicuous outside; apex posterior.

BLAINVILLE. Manual of Malacology.

Hab. Honduras Bay.

Species 4. (Mus. Brit.)

EMARGINULA HUZARDI. *Ema. testâ ovali, albâ, valdè depressâ, posticè latiusculâ, costis subrotundis et liris numerosis regularibus concentricis concinnè cancellatâ; apice postico, incureo; fissurâ incisâ.*

HUZARD'S EMARGINULA. Shell oval, white, much depressed, posteriorly rather broad, neatly cancellated with rather rounded ribs and numerous regular concentric ridges; apex posterior, curved inwards; fissure incised.

PAYRAUDEAU. Proc. Zool. Soc., 1851.

Emarginula Cuvieri, Savigny.

Hab. Mediterranean.

The sculpture of this species is fine, regular, and beautiful.

Species 5. (Mus. Brit.)

EMARGINULA FISSURATA. *Ema. testâ latâ, depressâ, crassâ, purpurâ, concolori vel rubro variegatâ; costis numerosis, granosis radiatâ, anticè paulò angustatâ; apice paulò postico; costâ dorsali elevatâ, fissurâ brevissimâ, incisâ.*

THE FISSURED EMARGINULA. Shell broad, depressed, thick, purple of one colour, or varied with red; rayed with numerous granular ribs, a little narrowed anteriorly; apex a little posterior; dorsal rib raised, fissure very short, incised.

CHEMNITZ. Conch. Cab. vol. x.

Emarginula variegata, A. Adams.

Hab. Philippines.

A very solid, broad species, not in danger of being confounded with anything else.



1



7



11

12



13



15



16



17

EMARGINULA.

PLATE II.

Species 6. (Mus. Sowerby.)

EMARGINULA POLYGONALIS. *Emu. testâ ovato-octogonâ, albâ, depresso-conicâ, apicè subcentrali, posticè parvè crenatâ, lateribus subcompressis; radiis octo parvis patulis subanisatis, interstitialibus minoribus, albis alis; fissurâ brevissimâ, intus in cavitate, ceteris in costâ cavitatis.*

THE MANY-SIDED EMARGINULA. Shell ovato-octagonal, whitish, depressed-conical, apex subcentral, a little inclined posteriorly, sides rather compressed; eight principal rays prominent, subanale, the interstitial ones smaller, alternating; fissure very short, confined in a canal inside, and a rib outside.

A. ADAMS, Proc. Zool. Soc., 1861. Sowerby's Thesaurus, f. 78, 20.

Emarginula ovalata, A. Adams. The young state of this species.

Hab. Catuanan, Philippines.

Species 7. (Mus. Brit.)

EMARGINULA LUTEOLA. *Emu. testâ subdepressâ, subovata, viridi rubrâ, antice angustiusculâ; costis dentatis, posticis majoribus; dorso antice convexo, posticè depresso, apicè parvè posticè inclinato; testâ intus viridi crenatâ; fissurâ brevi, incisâ.*

THE BEAUTIFUL EMARGINULA. Shell subdepressed, subovate, rayed with green, narrower anteriorly; ribs dentated, the posterior ones the larger; back anteriorly convex, posteriorly depressed, apex a little posteriorly inclined; shell within varied with green; fissure short, incised.

A. ADAMS, Proc. Zool. Soc., 1851. Sowerby's Thesaurus, f. 50-51.

Emarginula picta, Dunker.

Hab. Isl. Catuanan, Philippines.

This species was collected by Mr. Cuming on rocks exposed at low water.

Species 8. (Mus. Sowerby.)

EMARGINULA CANCELLATA. *Emu. testâ orbati, albâ, recurvâ, costis radiantibus, alternatis, alternatim minoribus, et angis tenuibus numerosissimis concentricis irregulariter cancellatâ; dorso antice convexo, posticè concavo; fissurâ incisâ, longiusculâ; apicè posticè, recurvo; costâ fissurâli fornicatâ.*

THE CANCELLED EMARGINULA. Shell ovate, white, recurved; regularly cancellated with radiating ribs alternately smaller, and with very numerous, fine concentric wrinkles; back anteriorly convex, posteriorly concave; fissure incised, rather long; apex posterior, recurved; fissural rib pitted.

PHILIPPI, Emu. Steil.

Hab. Palormna.

Species 9. (Mus. Jellreys.)

EMARGINULA ROSA. *Emu. testâ parvâ, curvâ, albo roseânti, radiatim costis crassiusculis paucis, concentricè foris interstitialibus cancellatâ; apicè calidè incurvo, post marginem posteriorem producto, dorso arcuato, elevato, fissurâ incisâ, breviusculâ.*

THE ROSE EMARGINULA. Shell small, curved, rose-white, cancellated radiately with rather thick, few ribs, concentrically with interstitial pits; apex strongly incurved, produced beyond the posterior margin, back arched, elevated, fissure incised, rather short.

BILL, Zool. Journ., vol. i.

Emarginula conica, Blainville.

Emarginula curvirostris, Deshayes.

Emarginula pilulus, Michaud.

Hab. Great Britain. Mediterranean.

Species 10. (Mus. Sowerby.)

EMARGINULA FULIGINEA. *Emu. testâ parvâ, ovatâ, depressâ, nitentè costatâ, fuliginâ, radiatim nigro*

October, 1873.

EMARGINULA.—PLATE II.

variegatâ, intûs subviridâ; apice obtuso, subcentrali viridescenti; fissurâ brevissimâ.

THE SMOKY EMARGINULA. Shell small, ovate, depressed, minutely ribbed, sooty, radiately variegated with black, greenish within; apex obtuse, subcentral, greenish; fissure very short.

A. ADAMS. Proc. Zool. Soc., 1851. Sowerby's *Thesaurus*, f. 7, 8.

Hab. —?

Species II. (Mus. Brit.)

EMARGINULA SULCIFERA. *Emâ. testâ ovali, depresso-conicâ, intûs viridescenti, extûs fusco-purpuratâ; apice obtuso, postico; costellis striisque, radiantibus inæqualibus; margine interno crenulato, nigro punctato; canali fissurali laterali, intûs profundo; fissurâ parvâ.*

THE GROOVED EMARGINULA. Shell oval, depressed-conical, greenish within, purplish brown without; apex obtuse, posterior; radiating ribs and striae unequal; inner margin crenulated, spotted with black; fissural canal lateral, deep within; fissure small.

A. ADAMS. Proc. Zool. Soc., 1851. Sowerby's *Thesaurus*, f. 84, 85.

Hab. —? Mus. Cuming.

This is the only species in which the fissure and the canal leading to it are placed, as in *Siphonaria*, a little on one side.

Species 12. (Mus. Brit.)

EMARGINULA CRATHA. *Emâ. testâ oratâ, conicâ, albâ; costis radiantibus acutis, nodosis, distantibus, interstitiis cancellatis, apice obtusiusculo, paulo post-mediano; costâ fissurali elevatâ, fissurâ brevissimâ.*

THE WATTLED EMARGINULA. Shell ovate, conical, whitish; radiating ribs sharply nodose, distant, interstices cancellated, apex rather obtuse, post-medial; fissural rib elevated, fissure very short.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. —?

The type specimen in the Cumingian Collection was unaccompanied by any information as to its locality.

Species 13. (Mus. Sowerby.)

EMARGINULA COSCINA. *Emâ. testâ elongatâ, depressâ, albâ; costis radiantibus numerosis, subnodosis; interstitiis cancellatis; apice postico, submarginali, arcuato, dorso arcuato, costâ fissurali foveatâ; fissurâ elongatâ.*

THE SLAT EMARGINULA. Shell elongated, depressed, white; radiating ribs numerous, slightly nodose; interstices cancellated; apex posterior, nearly marginal, arched, back arched, fissural rib ribbed; fissure elongated.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Mediterranean?

Distinguished from *Margarella elongata*, of Philippi, by the dorsal curve and the nearly marginal position of the apex.



11^a



11^b



17



18



19^a



20



21



22^a

EMARGINULA.

PLATE III.

Species 14. (Mus. Brit.)

EMARGINULA VIMINIA. *Emm. testâ subovoidâ, pallè distinctè pallèâ, radiatim fasciatâ; costis rubromatis nodulosis, inaequalibus, numerosis, triusque concentricis, crassa emellatâ; apicè postâ incurvè, post-mediana; costâ fissurali elevatâ, emellatâ, fissurâ brevissimâ.*

THE WICKER WORK EMARGINULA. Shell rather conical, very pale fulvous, radiately banded; cancellated with nodose, unequal, numerous, radiating ribs and thick concentric ridges; apex a little incurved, post-medial; fissural rib elevated, emellated; fissure very short.

A. ADAMS, Proc. Zool. Soc., 1851. Sowerby's *Testaceus*, f. 12.

Hab. Philippines.

Species 15. (Mus. Sowerby.)

EMARGINULA GALERUCULATA. *Emm. testâ parvâ, ovatâ, subdepressâ, curvâ, tenuitè emellatâ; apicè post-mediana, gignali, dorso convexo; cinctricè fissurali depressâ, fasciatâ; fissurâ elongatâ.*

THE CAP-SHALED EMARGINULA. Shell small, ovate, rather depressed, curved, finely cancellated; apex post-marginal, back convex; fissural cinctrix depressed, pitted; fissure elongated.

A. ADAMS, Proc. Zool. Soc., 1851.

Hab. Calapan, Isl. Mindoro, Philippines.

Species 16. (Mus. Brit.)

EMARGINULA CAPULIFORMIS. *Emm. testâ parvâ, uncinatâ, elevatâ, albââ, costis calidis paucis subaequalibus et rugis transversis interstitialibus cancellatâ; apicè post-marginali, valillè incurvâ, dorso convexo, perlevato; fissurâ brevi.*

THE HOOLED EMARGINULA. Shell small, hooked, elevated, whitish, cancellated with few strong, nearly equal ribs and transverse interstitial

ridges; apex post-marginal, strongly incurved, back convex, much elevated; fissure short.

PHILIPP. *Enum. Moll. Sicilae*, I. T. vii. f. 12.

Hab. Mediterranean.

The circumference of this small shell is so narrow, and the curved elevation of the back so high, that it is almost a cornucopia in form.

Species 17. (Mus. Sowerby.)

EMARGINULA ELONGATA. *Emm. oblongâ, subdepressâ, ovali, alba, costâ radiatibus calidis, subdistinctis quædam plurimis posticis prominentioribus, et rugis concentricis interstitialibus cancellatâ; apicè post-mediana, acuto, posticè inclinato; cinctricè fissurali depressâ, fasciatâ; fissurâ incisâ, longitudine mediocri.*

THE ELONGATED EMARGINULA. Shell oblong, subdepressed, conical, white; cancellated with strong, rather distant radiating ribs, of which several posterior ones are more prominent, and concentric interstitial ridges; apex post-medial, sharp, inclined posteriorly; fissural cinctrix depressed, pitted; fissure incised, of medium length.

COSTA, *Phil. Enum. Moll. Sicil.*

Hab. Mediterranean.

Species 18. (Mus. Brit.)

EMARGINULA INCISURA. *Emm. testâ oblongâ, depressâ, pallidè fulvâ, posticè magis expansâ, anticè magis elevatâ, costis crebris, subæqualibus, radiatibus, et striis concentricis sculptâ; apicè ante-mediano, recurvo, dorso convexo; fissurâ incisâ, elongatâ.*

THE INCISED EMARGINULA. Shell oblong, depressed, pale fulvous, more expanded at the back, more elevated in front, sculptured with rather rounded, close ribs and concentric striae; apex ante-

EMARGINULA.—PLATE III.

medial, recurved, back convex; fissure incised, elongated.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. —?

The locality of this remarkable shell in the Cumingtonian collection is not known.

Species 19. (Mus. Brit.)

EMARGINULA AUSTRALIS. *Uma, testâ conicâ, elevatâ, rotundatâ avatâ, pallidâ fulvâ, costis radiantibus scabris inæqualibus, et lineis concentricis decussatâ, costis tribus anticis majoribus; apice paulô post-mediano, recurvo, acuminato, elevato; fissurâ brevissimâ.*

THE AUSTRALIAN EMARGINULA. Shell conical, elevated, roundly ovate, pale fulvous, decussated with unequal radiating and concentric lines, three anterior ribs large; apex a little post-medial, recurved, acuminated, elevated; figure very short.

QUOY ET GAIMARD. Voy. Astr.

Hab. Australia.

Species 20. (Mus. Brit.)

EMARGINULA PLANULATA. *Uma, testâ depressâ, pallidâ fulvâ, posticâ parvulatâ, productâ, anticâ brevi, concentricâ; costis numerosis subæqualibus, de-*

pressis cathatâ; apice recurvo, nullâ anti-mediano; posticâ incisâ, elongatâ.

THE FLATTENED EMARGINULA. Shell depressed, pale fulvous, posteriorly flattened, produced, anteriorly short, rather convex; rayed with numerous nearly equal depressed ribs; apex recurved, very ante-medial; fissure incised, elongated.

ARTHUR ADAMS. Proc. Zool. Soc., 1851.

Hab. Philippines.

This species differs from *Emarginula incisura* principally in the sculpture.

Species 21. (Mus. Brit.)

EMARGINULA CLYPEUS. *Uma, testâ pallidâ fulvâ, depressâ, costis radiantibus numerosis subæqualibus et strâis concentricis decussatâ; lateribus rectiusculis; costis tribus posticis majoribus; apice centrali, paulô recurvo, fissurâ incisâ, elongatâ.*

THE SHIELD EMARGINULA. Shell pale fulvous, depressed, decussated with numerous radiating nearly equal ribs and concentric stria; sides rather straight, three posterior ribs larger; apex central, a little recurved, fissure incised, elongated.

ARTHUR ADAMS. Proc. Zool. Soc., 1873.

Hab. Philippines.



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32 a



a



b

33



34

EMARGINULA.

PLATE IV.

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

EMARGINULA VARI-GATA. *Emu, testâ, subovata, depressa, latâ, punctis radiisq. variegatâ; apice obtuso, pauli post-mediani, costis inaequalibus, numerosis, rugosis, hinc illic nigropunctis articulatis; fissurâ brevi.*

THE VARI-GATED EMARGINULA. Shell rather conical, depressed, broad, varied with spots and rays; apex obtuse a little behind the middle; ribs unequal, numerous, rugose, here and there seemingly articulated with black; fissure short.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Australia.

Nearly of the form of *Emarginula subopaca*, but with rougher and stronger ribs.

Species 23. (Mus. Brit.)

EMARGINULA DILECTA. *Emu, testâ depressâ, posticè latiusculâ, albâ; apicè subrecto; costis subaequalibus, subdistantibus, interstitiis concentricè liris; fissurâ sublongâ.*

THE CHOICE EMARGINULA. Shell depressed, rather broad posteriorly, whitish; apex leaning a little backwards; ribs nearly equal, rather distant; interstices concentrically ridged; fissure rather lengthened.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. George's Sound, South Australia.

The regularly concentric ridges shown in the interstices give this little shell a beautifully cancellated appearance.

Species 24. (Mus. Brit.)

EMARGINULA OBOVATA. *Emu, testâ depressâ, albâ, posticè subcapitata, anticè angustiusculâ; apicè pauli post-mediani, recurvo; costis inaequalibus et liris concentricè parvis concavâ; costâ fissurâli forâ, fissurâ sublongâ, liris.*

THE OBOVATE EMARGINULA. Shell depressed, whitish, a little expanded posteriorly, rather narrow anteriorly; apex a little behind the middle, recurved; cancellated with imbricated ribs, and small concentric ridges; fissural rib pitted, fissure rather long, incised.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Catbalonga, Isl. Samar, H. Cuming.

Species 25. (Mus. Brit.)

EMARGINULA PUNCTULATA. *Emu, testâ ellipticâ, posticè pauli latiori, albâ, costis radiatibus, rugosis, subdistantibus et liris tenuibus concentricè reticulatâ, apicè posticè acuto recurvo; cicatrix fissurâli planulatâ; fissurâ latâ, breviusculâ.*

THE PUNCTULATED FISSURELLA. Shell elliptic, a little broader posteriorly, whitish, reticulated with rough, rather distant radiating ribs and thin concentric ridges; apex posterior, sharp, recurved; fissural cicatrix flattened; fissure broad, rather short.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. — ?

Quite distinct from *Emarginula crassa* in sculpture although similar in form.

Species 26. (Mus. Brit.)

EMARGINULA CRASSA. *Emu, testâ magna, elevatâ, conicâ, solidâ, albâ, posticè latiori, costis minutè nodosis, inaequalibus, fasciobatis, radiatâ, apicè retrorso, post-mediani, cæ incurvo.*

THE THICK EMARGINULA. Shell large, elevated, conical, solid, white, posteriorly broader, rayed with minutely nodose unequal fasciulated riblets;

apex bent backwards, post-medial, scarcely bent inwards.

J. SOWERBY. Mil. Con., Pl. 33

Emarginula solidula. Costa.

Hab. Great Britain, Mediterranean.

Species 27. (Fig. *b, c*, Pl. VIII., Mus. Brit.)

EMARGINULA EMENTATA. *Emu. testis ovali, conici, latè, fuscè; apice elevato, incurvo, valde post-mediani; costis aequalibus, rotundis, crebris; fissurâ elongatâ, angustâ, propè marginem contractâ, aut marginem clausâ.*

THE MENDEL EMARGINULA. Shell oval, conical, broad, brown; apex elevated, incurved, much behind the middle; ribs equal, rounded, close; fissure elongated narrow, contracted near the margin, closed at the margin.

SOWERBY. Thestrus Conchyliorum. Emarginula, sp. 31, f. 11.

Hab. ———

By the curious way in which the edges of the fissure are drawn together towards the margin till closed, this shell becomes a sort of link between the genera *Rimula* and *Emarginula*.

Species 28. (Mus. Brit.)

EMARGINULA CUCULLATA. *Emu. testis ovalis, levati, albati, anticè contracti; costis calidis posticè angis*

distantibus, radiantibus, et liris concentricis reticulatâ; apice elevato retrorsim, arcuato, multò post-mediani; fissurâ latâ, elongatâ, incisâ.

THE HOODED EMARGINULA. Shell ovate, elevated, whitish, anteriorly contracted, reticulated with strong radiating ribs more distant posteriorly and concentric ridges; apex elevated, arched backward, much behind the middle; fissure broad, elongated, incised.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Singapore.

Found on larger shells in five fathoms of water.

Species 29. (Fig. *a, b*, Mus. Brit.)

EMARGINULA ADAMSIANA. *Emu. testis pallidè rosca, ellipticè, costis magis rugosis, et porris intermediis radiantibus, et liris concentricis inaequalibus scabrosis cancellatâ; dorso arcuato; apice post marginem posticum declinato; fissurâ longiusculâ, incisâ.*

ADAMS'S EMARGINULA. Shell pale rose, elliptic; cancellated with large rugose radiating ribs, and unequal scabrous concentric ridges; back arched; apex bent over beyond the posterior margin; fissure rather long, incised.

SOWERBY. Thestrus Conchyliorum. Emarginula, sp. 26, f. 27, 28.

Hab. Japan.

This species slightly resembles *Emarginula rosca*, but the ribs are much fewer and coarser.



EMARGINULA.

PLATE V.

Species 30. (Mus. Brit.)

EMARGINULA SCARIESCULA. *Emm. testâ ovato-subquadrata, subdepressa, pallide fulvâ, fusco-fulvescenti maculata, anticâ angustâ acutâ, posticâ propè marginem tumida, dorso arcuato, apice recurvo, post-ventrali; costis radiantibus crassis, rugosis, distantibus, interstitiis cancellatis; fissurâ clausâ, incisâ.*

THE SCARIES EMARGINULA. Shell ovately subquadrate, subdepressed, pale fulvous, spotted with reddish-brown rather narrow anteriorly, tumid posteriorly near the margin, back arched, apex recurved, post-medial; radiating ribs thick, rough, distant, with the interstices cancellated; fissure elongated, incised.

A. ADAMS, Proc. Zool. Soc., 1861.

Hab. Japan.

Species 31. (Fig. a, b, Mus. —?)

EMARGINULA PUNCTATA. *Emm. testâ parvâ, ovato-subrotata, subdepressa, costis radiantibus parvis, distinctibus, nigro punctatis, interstitiis striatis; apice obtuso, post-mediali; fissurâ incisâ.*

THE POINTED EMARGINULA. Shell small, rounded ovate, depressed; radiating ribs small, distant, spotted with black; interstices striated; apex obtuse, post-medial; fissure incised.

A. ADAMS, Proc. Zool. Soc., 1861.

Hab. San Nicholas Is., Zebu, Philippines.

A little neatly spotted species so shortly oval as to be nearly round.

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

EMARGINULA MACULATA. *Emm. testâ parvâ, ovatâ, depressâ, minute radiatum costatâ, interstitiis concentricè latis; dorso arcuato, griseo maculato; apice recurvo, marginem declinato.*

THE SPOTTED EMARGINULA. Shell small, ovate, depressed, minutely radiately ribbed, interstices concentrically ridged; back arched, spotted with grey; apex recurved, bent over behind the margin.

A. ADAMS, Sowerby's Thesaurus. *Emarginula*, sp. 27. f. 31, 32.

Hab. Goto, Japan.

Species 33. (Fig. a, b, Mus. Sowerby.)

EMARGINULA BITICULATA. *Emm. testâ albâ, conicâ, elevatâ, costis radiis radiantibus, et liris concentricè reticulatâ; interstitiis profunde foveolatis; apice retrorso, acuto; fissurâ elongatâ, incisâ.*

THE BITICULATED EMARGINULA. Shell white, conical raised, reticulated with strong radiating ribs and concentric ridges; interstices deeply pitted; apex leaning backwards, sharp; fissure elongated incised.

J. SOWERBY, Mineral Conchology.

Ucaella fissura (pars.), Linnæus.

Emarginula laticis, Keeling.

Emarginula retrorsa, A. Adams.

Hab. Isl. Luzon, Philippines.

Species 34. (Mus. Cuming.)

EMARGINULA VANIKOROENSIS. *Emm. testâ latâ, conicâ, arcuatâ, tumâ, albâ, anticâ angustâ acutâ; costis latis, tumidi, distantibus; margine crenulato; apice post-mediali, fissurâ brevi.*

THE VANIKORO EMARGINULA. Shell broad, conical, arched, thin, white, rather narrow anteriorly; ribs broad, tumid, distinct; margin crenulated; apex post-medial, fissure short.

QUEY, Voyage de l'Astrolabe.

Hab. Vanikoro.

EMARGINULA.—PLATE V.

Species 35. (Mus. Brit.)

EMARGINULA CLATHRATA. *Ema. testā depressā, albā, latā costis radiantibus rotandis, subdistantibus, et liris concentricis cancellatā, interstitiis foveolatis; apice arcuatā retroso; fissurā longatā, angustā, incisā.*

THE CROSS-BARRED EMARGINULA. Shell depressed, white, broad, cancellated with rather distant rounded radiating ribs, and concentric ridges with pitted interstices; apex arched backwards; fissure elongated, narrow, incised.

PLATE ——— Sowerby's Thesaurus. Emarginula, species 7, f. 54

Hab. Sandwich Islands.

Species 36. (Fig. a, b, Mus. Brit.)

EMARGINULA ELLULA. *Ema. testā ovatā, albā, arcuatā, ventricosā; apice post-mediali, declinato; costis distantibus, prominentibus, et liris intermediis subciliatis; carinā fissurali foveolatā; fissurā longatā.*

THE BEAUTIFUL EMARGINULA. Shell ovate, white, arched, ventricose. apex post-medial, bent down; ribs

distant, prominent, and small intermediate ones nearly spinose; fissural keel pitted; fissure elongated.

A. ADAMS, Proc. Zool. Soc., 1851.

Hab. Isl. Luzon, Philippines.

This pretty shell is distinguished from *Emarginula cancellata* by its aculeated sculpture.

Species 37 (Mus. Brit.)

EMARGINULA SCUTULATA. *Ema. testā oblongā, polygonā, subdepressā, vixitā concentricē fuscātā; costis rugosis inaequalibus, fusciculis; apice obtuso, post-mediali; cicatrice fissurali depressā, minutē foveolatā, fissurā brevi, incisā.*

THE SHIELD-SHAPED EMARGINULA. Shell oblong, polygonal, subdepressed, concentrically banded with green; ribs rough, unequal, collected in bunches; apex obtuse, post-medial; fissural cicatrix depressed, minutely pitted, fissure short, incised.

DESCHAYES ———? Sowerby's Thesaurus. Emarginula, sp. 45, fig. 53.

Hab. ———?



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EMARGINULA.

PLATE VI.

Species 38. (Mus. Brit.)

EMARGINULA CRASSIOSOMA. *Emu, testâ parvâ, subrotundâ, antè lobâtescâtâ, rugosâ; costis radiatibus annuosis, aequalibus, nodulosis, interstitiis concentricè regulariter lincatis, foradatis, apicè posticâ; dorso arcuato; cucurulo fissurali elevato; fissurâ elongatâ.*

THE THICK-RIBBED EMARGINULA. Shell small, subovate, anteriorly rather broad, rugose; radiating ribs numerous, equal, nodulose, interstices concentrically ridged, pitted; apex posterior; back arched; fissural elevatrix elevated, fissure elongated.

NOBLEYA. *Thezaurus Conchyliflorum. Fissurellidae. Pl. XI. fig. 12.*

Hab. ——— ?

Species 39. (Mus. Brit.)

EMARGINULA CRASSILOBUM. *Emu, testâ compressâ, posticè expansâ, fulvâ, partim subinermâ, quâ angulo angulatâ, costibus inaequalibus, calatis, ad angulos prominèntibus, posticè duplicatè radiatâ, margine dentatâ; apicè obtuso paulè antecâ; costâ fissurali prominènti, fissurâ brevi, angulatâ.*

THE THICK-RIBBED EMARGINULA. Shell compressed, posteriorly expanded, fulvous, partly subinermous, five-angled, rayed with unequal, strong ribs, more prominent at the angles, the posterior ones doubled, margin toothed; apex obtuse, a little anterior; fissural rib prominent, fissure short, square.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. ——— ?

A very *limpet-like* shell, with no tendency in the beak to curve.

Species 40. (Mus. Brit.)

EMARGINULA NOBULOSA. *Emu, testâ fulvâ-circatâ, elevatâ, arcuatâ, costis septem crassis, lobatis, latis, prominèntibus radiatâ, inter costas foradatâ; costâ fissurali angustâ, prominènti; fissurâ internâ; apicè recurva, dorso arcuato.*

THE NOBULOUS EMARGINULA. Shell fulvous-green, elevated, arched, rayed with seven thick lobed, broad, prominent ribs, pitted between the ribs; fissural rib narrow, prominent; fissure internal; apex recurved, back arched.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Sibonga, Isl. Zebu, Philippines.

The ribs are thickly clubbed and the fissure is only visible on the inner edge.

Species 41. (Mus. Brit.)

EMARGINULA CUMINGII. *Emu, testâ compressâ, pallidè fulvâ, medio et versùs apicem circatâ pictâ; costis rugatis, rotundis, inaequaliter fasciculatis radiatâ; margine expanso, lobato, octangulatâ; apicè obtuso, ante-median, fissurâ brevi, incisâ.*

CUMING'S EMARGINULA. Shell compressed, pale fulvous, painted with green in the middle and towards the apex; rayed with wrinkled, rounded, unequal grouped ribs; margin expanded, lobed, octangular; apex obtuse, ante-median; fissure short, incised.

SARLE. *Thezaurus Conchyliflorum. Fissurellidae. Pl. XII. 76; Emarginula, species 76.*

Hab. Australia.

Species 42. (Fig. a, b, Mus. Brit.)

EMARGINULA NOTATA. *Emu, testâ ovato-subrotundâ, depressâ, latâ, subcircatâ, costis annuosis, depressis, nigris radiatâ, intus ad marginem lineis nigris ornâtâ; dispositis notatâ, apicè obtuso, ante-median, fissurâ inconspicuâ.*

THE MARKED EMARGINULA. Shell ovate-subrotund, depressed, broad, bluish, rayed with numerous depressed, black ribs, marked inside at the margin with black lines ornately disposed; apex obtuse, ante-median; fissure inconspicuous.

LISNAES (Patella). *Systema Naturæ.*

Hab. ——— ?

December, 1873.

EMARGINULA.—PLATE VI.

The fissure in this species is only represented by a slight groove in the interior, scarcely perceptible at the margin. The black lines are placed in ornamentally festooned clusters on the margin.

Species 43. (Fig. *a, b*, Mus. Brit.)

EMARGINULA PANIENSIS. *Em. testâ elevatâ, arcuatâ, viridî, cancellatâ, costis nodulosis, validis, pecticis et lateradibus subæqualibus, tribus anticis magnis, prominentibus, dicens radiatâ; margine antico elevato; dorso arcuato, apice postico, acutè recurvo.*

THE PANI EMARGINULA. Shell elevated, arched, green, cancellated, rayed with nodulose, strong ribs, the hinder and lateral ones nearly equal, three in front large, prominent, divided: anterior margin ele-

vated; back arched, apex posterior, acutely recurved.

QUOY. Voyage de l'Astrolabe.

Emarginula clathrata, Adams and Reeve.

Hab. Panhi; *Quoy*. Philippines; *Cuming*.

Species 44. (Fig. *a, b*, Mus. Brit.)

EMARGINULA SOLIDULA. *Em. testâ parvâ, albâ, solidâ, ovatâ, paulò elevatâ; costis rotundis, subnodosis radiatâ; interstis angustis; apice post-mediani: fissurâ elongatâ, incisâ.*

THE SOLID EMARGINULA. Shell small, white, solid, ovate, little elevated; rayed with rounded subnodose ribs; interstices narrow; apex post-median: fissure elongated, incised.

PHILIPPI. Enum. Sicil.

Hab. Mediterranean. Japan



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EMARGINULA.

PLATE VII.

Species 15. (Fig. a, b, Mus. Brit.)

EMARGINULA CANDIDA. *Emm. testâ albâ, arcuatâ, ovatâ, costis æqualibus, nodosis, subequalibus cinctâ, rugatâ, radiatâ, interstitiis concentricis latis et foveolatis; apice cæcâ, retroso; dorso arcuato; fissurâ brevî, subparallelâ, incisâ.*

THE WHITE EMARGINULA. Shell white, arched, ovate, rayed with about twenty strong, nodose, nearly equal ribs, with concentrically ridged and pitted interstices; apex much recurved; back arched; fissure short, rather square, incised.

A. ADAMS. Sowerby's *Thursites* Conchyliferum. Fissurellidæ, *Emarginula*, sp. 16, figs. 15, 16.

Hab. Port Adelaide, Australia.

This species is of exquisite sculpture.

Species 16. (Mus. Brit.)

EMARGINULA FUMILA. *Emm. testâ parvâ, pallidâ, fissurâ depressâ, costis inæqualibus, rotundis, concentricè rugatis radiatâ; costâ fissurâli cæcâ; fissurâ incisâ; brevissimâ; apice obtuso, subcentrali.*

THE DWARFISH EMARGINULA. Shell small, pale brown, depressed, rayed with unequal rounded concentrically wrinkled ribs; fissural rib raised; fissure incised, rather short; apex obtuse, nearly central.

ARTHUR ADAMS. Proc. Zool. Soc., 1851.

Hab. Honduras.

A little *patella*-like species with coarse sculpture.

Species 17. (Mus. Brit.)

EMARGINULA STRIATULA. *Emm. testâ parvâ, albâ, oblongâ, depressâ, costis inæqualibus, subrotundis, tribus posticis et quatuor anticis majoribus, laterâlibus minoribus, parvis intermedii radiatâ, interstitiis tenuiter concentricè striatis; apicè post-mediani obtuso, fissurâ incisâ, oblongâ.*

THE LITTLE STRIATED EMARGINULA. Shell small, white,

oblong, depressed, rayed with unequal, rather rounded ribs, the three posterior and four anterior larger, and the lateral smaller, a few intermediate, with finely, concentrically striated interstices; apex post-median, fissure incised, oblong.

QUOY. Voyage de l'*Astrofala*.

Hab. Australia.

Species 18. (Mus. Brit.)

EMARGINULA LEVIGATULA. *Emm. testâ parvâ, albâ, griseo radiis latis pictâ, depressâ, posticè rotundâ, anticè angustiorè, angulatâ, subplanulatâ, costis subarigatis radiatâ, interstitiis concinno foveolatis et costellis interstitialibus caris; apice paulò post-mediani; fissurâ incisâ, oblongâ.*

THE SMOOTH-RIBBED EMARGINULA. Shell small, white, painted with grey in broad rays; depressed, rounded posteriorly, narrower anteriorly, angular, rather flat, rayed with rather smooth ribs, with interstices neatly pitted and a few interstitial rillelets; apex a little post-median; fissure incised, oblong.

A. ADAMS. Proc. Zool. Soc., 1851; Sowerby's *Thes. Conch.* Fissurellidæ, Plate V., fig. 57.

Hab. ——— ?

A pretty little species, with the ribs rather smooth.

Species 19. (Mus. Brit.)

EMARGINULA ACULEATA. *Emm. testâ parvâ, elongatâ, fulvâ, fusco radiatâ, posticè rotundâ, anticè angustiorè, costis prominentibus, subnodosis posticè radiatioribus radiatâ; interstitiis concentricè latis; apice recurvo, aculeato, post-mediani.*

THE ACULEATED EMARGINULA. Shell small, elongated, fulvous, rayed with brown, rounded posteriorly, narrower anteriorly, rayed with prominent, rather nodose ribs, the posterior stronger, interstices con-

EMARGINULA.—PLATE VII.

centrically ridged; apex recurved, aculeated, post-medial.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. ———?

The narrow brown rays give a sprightliness of appearance to this pretty little species.

Species 50. (Mus. Brit.)

EMARGINULA LATA. *Emu. testâ depressâ, pallidè fulvâ, subquadrata, costis rugosis, radiâs, inæqualibus, lateraliter subcompressis radiatâ, interstitiis angustis; costâ fissurali elevatâ; fissurâ parvâ, quadratâ; apicè centrali, obtusâ.*

THE BROAD EMARGINULA. Shell depressed, pale fulvous, subquadrate, rayed with rough, strong, unequal, laterally rather compressed ribs, with narrow interstices: fissural rib raised; fissure small, square; apex central, obtuse.

QUOY. Voyage de l'ASTROLABE.

Submarginula costilis, A. Adams.

Hab. Australia.

Species 51. (Fig. a, b, Mus. Brit.)

EMARGINULA ALVEOLATA. *Emu. testâ pallidè fulvâ, ovatâ, subconicâ, elevatâ, costis octodecim circâ,*

crassis, rugatis radiatâ; interstitiis concentricè liratis; apicè posticâ, retroso, dorso anticè arcuato, posticè infri apicem ferè perpendiculariter declivi; fissurâ brevi.

THE CHANNELLED EMARGINULA. Shell pale fulvous, ovate, rather conical, elevated, rayed with about eighteen thick, wrinkled ribs with concentrically ridged interstices; apex posterior, turned back; back arched anteriorly, almost perpendicularly sloped posteriorly below the apex; fissure short.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Honduras.

Species 52. (Mus. Brit.)

EMARGINULA LONGIFISSE. *Emu. testâ oblongâ, depressâ, subquadrata, costis anticis distantibus, majoribus lateralibus compressis radiatâ; apicè longè post-mediani; fissurâ elongatâ, incisâ.*

THE LONG-SLIT EMARGINULA. Shell oblong, depressed, subquadrate, rayed with ribs, the anterior ones distant, lateral ones compressed; apex far behind the middle; fissure lengthened, incised.

SOWERBY. Thesaurus Conchyliorum. Fissurellidæ, Emarginula, species 19, Pl. XI. f. 62.

Hab. ———?



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EMARGINULA.

PLATE VIII.

FIG. 27.

EMARGINULA EMARGINATA, *Scar. Jav.* The first figure given in a previous plate, is that of a dark variety, the lighter variety now figured being drawn from specimens in the British Museum under the name of *Emarginula Purpurata*, Crosse.

Species 53. (MUS. BRIT.)

EMARGINULA SCULPTURATA. *Emu. testâ depressâ, antice subquadrata, postice subtriangulâ, costis costarum decem concentricis sculptis quantum tubos postice magis, tubos antice inordinatis, radiâ, postice fultâ, nodulis parvis ante costas postâ; apice obtuso, paulo post-mediano; costâ fissurali prominenti, fissura brevissima.*

THE SCULPTURED EMARGINULA. Shell depressed, anteriorly rather square, posteriorly slightly acuminate; rayed with ten windled, neatly sculptured ribs, of which the three posterior are large and the three anterior very large, pale fulvous, painted with brown spots between the ribs; apex obtuse, a little post-medial; fissural rib prominent; fissure very short.

A. ADAMS, Proc. Zool. Soc., 1851.

Hab. Calapan, Mindoro, Philippines.

Peculiarly distinguished by rows of brown spots between the well-sculptured ribs.

Species 54. (BRIT. MUS.)

EMARGINULA SCARLEOSTATA. *Emu. testâ parvâ, albâ, depressâ, costis quindecim minutissimis, scabris, distantibus radiatâ; interstitiis concentricis linitis, apice post-mediano; fissurâ brevissimâ, subquadratâ.*

THE BEGGAR-RIBBED EMARGINULA. Shell small, white, depressed, rayed with fifteen very minutely scabrous, distant ribs; interstices concentrically ridged; apex post-medial; fissure rather short, squareish.

A. ADAMS, Proc. Zool. Soc., 1851.

Hab. Isl. Corceidor, Bay of Manila.

At first sight, the ribs of this little species appear smooth, but the lens shows that they are in reality very minutely scabrous.

Species 55. (MUS. BRIT.)

EMARGINULA DEPRESSA. *Emu. testâ magis, subcitrâ, depressâ, costis nodosis inaequalibus radiatâ, antice subcontractâ, postice paulo magis expansâ; apice obtuso, ant. mediano, costâ fissurali brevi; fissurâ brevissima.*

THE DEPRESSED EMARGINULA. Shell large, greenish, depressed, rayed with unequal nodose ribs, anteriorly a little contracted, posteriorly a little more expanded; apex obtuse, ante-medial; fissural rib short; fissure very short.

DE MARCHI, Manuel de Malakologie.

Hab. Honduras.

Species 56. (MUS. BRIT.)

EMARGINULA SILLATA. *Emu. testâ pallidâ fultâ, depressâ, costis rugosis, cald. inaequalibus, ad marginem prominentibus, acutis radiatâ; apice obtuso, centrali; costâ fissurali paulo obliquâ; fissurâ brevissima.*

THE SILLATED EMARGINULA. Shell pale fulvous, depressed, rayed with rugose very unequal ribs, prominent and sharp at the margin; apex obtuse, central; fissural rib a little oblique; fissure very short.

A. ADAMS, Proc. Zool. Soc., 1851.

Hab. Australia.

Somewhat resembling *Emarginula rugosa*, but with the ribs very sharply prominent at the margin, and the fissure a little on one side.

Species 57. (MUS. BRIT.)

EMARGINULA IMERICATA. *Emu. testâ magis, acutâ, depressâ, fultâ, medio ferrugineâ, costis rotundis,*

EMARGINULA.—PLATE VIII.

nodosis, inaequalibus, quarum tribus anticis majoribus radiatâ; apicè centrâli, obtuso; fissurâ brevissimâ.

THE IMERICATED EMARGINULA. Shell large, ovate, depressed, fulvous, ferruginous in the middle, rayed with rounded, nodose, unequal ribs, of which the three anterior are the larger; apex central, obtuse; fissure very short.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Mouth of Victoria River, S. Australia.

Species 58. (Mus. Brit.)

EMARGINULA TASMANIÆ. *Ena. testâ rugosâ, pallidâ, conicâ, costis majoribus, nodosis, inaequalibus radiatâ; apicè elevato, valdè retroso; costâ fissurâli elongatâ, prominenti; fissurâ brevi.*

THE TASMANIAN EMARGINULA. Shell rugose, pale, conical, rayed with large, nodose, unequal ribs; apex elevated, much thrown back; fissural rib elongated, prominent; fissure short.

SOWERBY. Thesaurus Conchyliorum. Fissurellidæ, Emarginula, sp. 49, fig. 72.

Hab. Tasmania.

Species 59. (Fig. a, b, Mus. Brit.)

EMARGINULA JAPONICÆ. *Ena. testâ subovatâ, posticè sub-*

contractâ, tenuiter costatâ, purpurco-fusâ; apicè valdè retroso; dorso anticè arcuato; fissurâ brevissimâ, incisâ.

THE JAPAN EMARGINULA. Shell subovate, posteriorly rather contracted, finely ribbed, purple-brown; apex much turned backwards; back arched in front; fissure rather short, incised.

SOWERBY. Thesaurus Conchyliorum. Fissurellidæ, Emarginula, sp. 36, figs. 43, 44.

Hab. Japan.

Species 60. (Mus. Brit.)

EMARGINULA GUADALOUPENSIS. *Ena. testâ rugosâ, conicâ, viridi, costis inaequalibus, clathratis, nodosis radiatâ; interstitiis fœcolatis; apicè elevato, acuminatâ; costâ fissurâli prominenti; fissurâ brevissimâ.*

THE GUADALOUPE EMARGINULA. Shell rugose, conical, green, rayed with unequal, latticed, nodose ribs, with pitted interstices; apex elevated, acuminated; fissural rib prominent; fissure very short.

SOWERBY. Thesaurus Conchyliorum. Fissurellidæ, Emarginula, sp. 55, fig. 69.

Hab. Guadaloupe.

A rough, irregular shell, coarsely resembling *Emarginula Panhensis*, but not having the symmetrical sculpture of that shell.



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EMARGINULA.

PLATE IX.

(Species 14. Fig. b, c.)

EMARGINULA VIMINATA, J. Adams. To replace figures a and b, Plate III., which were representations of *E. tenuistriata* repeated by mistake.

Species 61. (Mus. Brit.)

EMARGINULA TENTILIS. *Ema. testâ ovatâ, costis solilibus radiatâ, striâs concentricis cinctâ, albâ, subciliâ circum medium annulatâ; margine dentato; apice versâs marginem posticum declinato; costâ dorsali acutâ elevata, minutè foveolatâ; fissurâ brevi, incisâ.*

THE TENTILE EMARGINULA. Shell ovate, rayed with solid ribs, surrounded with concentric striae, whitish, with a greenish ring about the middle; margin dentate; sloped towards the posterior margin; dorsal rib sharply raised, minutely pitted; fissure short, incised.

GUILD. Invertebrata of United States.
Hab. N. America.

Species 62. (Mus. Brit.)

EMARGINULA SCABRICULA. *Ema. testâ ovatâ, anticè paulò angustatâ; pallidè fulvâ, costis distantibus, acutè squamatis, radiatâ; liris concentricis inter costas conspicuis; apice acuto, ante medium recurvo; costâ dorsali elevata, fissurâ brevissimâ, incisâ.*

THE SHARP-SCALED EMARGINULA. Shell ovate, anteriorly a little narrowed; pale fulvous, rayed with distant acutely scaled ribs; concentric ridges conspicuous between the ribs; apex acute, recurved in front of the middle; dorsal rib raised, fissure very short, incised.

A. ADAMS. MS. in Cum. Coll.
Hab. —?

Differing from *Emarginula rugosa* in the sharp prominence of the rather distant ribs.

Species 63. (Mus. —? copied.)

EMARGINULA SCUTELLA. *Ema. testâ pallidè fulvâ, depressâ, irregulariter costatâ; costis inæqualibus, rotundis, approximatis, concentricè striatis; apice*

acuto, paulò post-medium recurvo; margine postico subangulato.

THE LITTLE SHELL EMARGINULA. Shell pale fulvous, depressed, irregularly ribbed; ribs unequal, rounded, approximate, concentrically striated; apex acute, curved backwards a little behind the middle; posterior margin rather angular.

DESHAYES. Conch. Isl. de la Réunion, Pl. XXXIV., f. 1, 2.

Hab. Isl. Bourbon, or Réunion.

An irregularly angular character in the posterior outline distinguishes this species.

Species 64. (Mus. Crosse.)

EMARGINULA THOMASI. *Ema. testâ parvâ, depressâ, posticè rotundatâ, anticè angustatâ, costis numerosis regularibus radiantibus, et striâs elevatis concentricis concinne cancellatâ, pallidè subciliâ, fasciâ olivaceis cinctâ; apice obtuso, paulò post medium inclinato; margine arcuato, intâs denticulato; fissurâ latâ; sulco dorsali distincto.*

THOMAS'S EMARGINULA. Shell small, depressed, rounded posteriorly, narrowed anteriorly, neatly cancellated with numerous regular radiating ribs and raised concentric striae, pale greenish, encircled with olive bands; apex obtuse, inclined a little behind the middle; margin arched, denticulated within, fissure broad, with a distinct dorsal groove.

CROSSE. Journal de Conchyliologie, 1855, p. 43.
Hab. Alen. Red Sea.

Species 65. Mus. —? copied.)

EMARGINULA COSTIFLATA. *Ema. testâ ovatâ, elevata, pallidè subciliâ, costis validis, rectangularibus, subdistantibus et liris concentricis distinctis, inæqualibus, quarum plurimæ annulatis cancellatâ; apice validè retrorso, canali dorsali profundî; fissurâ magnâ, incisâ.*

THE RIBBED EMARGINULA. Shell ovate, elevated, pale greenish, cancellated with strong rectangular, rather distant ribs and concentric distinct, unequal ribs, of which several are annular; apex much recurved, with a deep dorsal canal; fissure large, incised.

DESHAYES. Conch. Isl. de la Réunion, Pl. XXXIV., f. 5-3.
Hab. Isl. Bourbon, or Réunion.

Some of the concentric ridges are so raised over the ribs as to form scarcely interrupted rings.

August, 1874.

EMARGINULA.—PLATE IX.

Species 66. (Fig. a, b, Mus. — ? copied.)

EMARGINULA DECORATA. *Emu. testâ parvâ, subdepressâ, albâ, arcuatâ convexâ, costellis radiantibus angustis, et liris interstitialibus planatis minutis concentricis sculptâ; apice obtuso, valdè retrorso; fissurâ brevî, incisâ.*

THE DECORATED EMARGINULA. Shell small, subdepressed, white, arched convexly, sculptured with narrow, radiating ribs and minute flattened, interstitial concentric ridges; apex obtuse, very backward; fissure short, incised.

DESHAYES. *Conch. de l'Isle de la Réunion*, p. 49, Pl. VII., f. 68.

Hab. Isl. Réunion (Bourbon).

A very interesting and neatly sculptured minute species.

Species 67. (Fig. a, b, Mus. — ? copied.)

EMARGINULA FENESTRATA. *Emu. testâ parvâ, albâ, convexo-arcuatâ, oblongo-ovatâ, costis crassis, brevibus, rotundis radiantibus, et foveolis parvis, rotundis interstitialibus sculptâ; apice obtuso, valdè retrorso; costâ fissurali distinctâ; fissurâ breviusculâ, incisâ.*

THE CASEMENT EMARGINULA. Shell small, whitish, convexly arched, oblong-ovate, sculptured with thick, smooth, rounded, radiating ribs, and small rounded interstitial pits; apex obtuse, very backward; fissural rib distinct; fissure rather short, incised.

DESHAYES. *Conch. de la Réunion*, Pl. VII., fig. 12-15.

Hab. Isl. de la Réunion (Bourbon).

Species 68. (Mus. Deshayes.)

EMARGINULA DECORATA. *Emu. testâ albâ, ovatâ, costis validis substantibus minutis, inter costas foveolis subquadratis concentricis cancellatâ; apice obtuso, retrorso; fissurâ breviusculâ, latâ.*

THE DECORATED EMARGINULA. Shell white, ovate, strengthened with rather distant, strong ribs, concentrically cancellated between the ribs with squarish pits; apex obtuse, placed backwards; fissure rather short, broad.

DESHAYES. *Conchyliologie de l'Isle de la Réunion.*

Hab. Isl. Réunion (Bourbon).

Species 69. (Fig. a, b, Mus. Sowerby.)

EMARGINULA OLDHAMI. *Emu. testâ albâ, conicâ oblongâ, irregulariter hexagonâ, inequilateralî, costis magis nodosis quinque majoribus, interstitialibus minoribus radiantibus et liris parvis concentricis sculptâ; apice elevato, versûs marginem dextram incurvo; costâ fissurali lamelliformi, prominenti, fissurâ brevî, profundâ.*

OLDHAM'S EMARGINULA. Shell whitish, conical, oblong, irregularly hexagonal, inequilateral, sculptured with five large, nodose, radiating ribs, some interstitial smaller ones and small concentric ridges; apex raised, bent in towards the right margin; fissural rib lamelliform, prominent, fissure short, deep.

Hab. Ceylon.

This remarkably formed species has some affinity with *Emarginula Panhensis*, in which there is a slight tendency to the one sidedness so decided on the shell before us.

Species 70. (Fig. a, b, Mus. Sowerby.)

EMARGINULA TUMIDA. *Emu. testâ ovato-subrotundâ, albâ, anticè subcontractâ, costis prominentibus numerosis subseratis, acutis radiantibus et liris irregularibus concentricis cancellatâ; dorso anticè valdè arcuato, gibboso; costâ fissurali prominenti, fissurâ breviusculâ, profundâ, incisâ; apice versûs marginem posteriorem inclinato.*

THE TUMID EMARGINULA. Shell ovate round, whitish, a little concentrated anteriorly, cancellated with numerous slightly serrated, sharp radiating ribs and irregular concentric ridges; back anteriorly much arched, gibbous; fissural rib prominent, fissure rather short, deep, incised; apex inclined towards the posterior margin.

OWERBY.

Hab. — ?

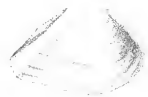
Emarginula candida is a less tumid shell, and the notch is very short and not incised as in this species.

EMARGINULA.

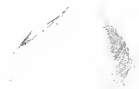
	Plate.	Species.		Plate.	Species.
<i>aculeata</i> , A. Adams	VII.	49	<i>Japonica</i> , Sowerby	VIII.	59
<i>acuminata</i> , A. Adams	I.	1	<i>lata</i> , Quoy	VII.	50
<i>Adamsiana</i> , Sowerby	IV.	29	<i>leucicostata</i> , A. Adams	VII.	48
<i>alveolata</i> , A. Adams	VII.	51	<i>longifissa</i> , Sowerby	VII.	52
<i>annulata</i> , A. Adams	I.	1	<i>maculata</i> , A. Adams	V.	32
<i>aspera</i> , Gould	I.	1	<i>nodulosa</i> , A. Adams	VI.	40
<i>Australis</i> , Quoy et Gaimard	III.	19	<i>notata</i> , Linnæus	VI.	42
<i>bellula</i> , A. Adams	V.	35	<i>obovata</i> , A. Adams	IV.	24
<i>cancellata</i> , Philippi	II.	8	<i>Oldhami</i> , Verille	IX.	69
<i>candida</i> , A. Adams	VII.	45	<i>Paivama</i> , Crosse	IV. VIII.	27
<i>candidata</i> , A. Adams	I.	1	<i>Panbiensis</i> , Quoy	VI.	43
<i>capuliformis</i> , Philippi	III.	16	<i>picta</i> , Dunker	II.	7
<i>catillus</i> , A. Adams	VII.	50	<i>pileolus</i> , Michxlv.	II.	9
<i>clathrata</i> , Adams and Reeve	VI.	43	<i>planulata</i> , A. Adams	III.	20
<i>clathrata</i> , Poise	V.	35	<i>polygonalis</i> , A. Adams	II.	6
<i>clypeus</i> , A. Adams	III.	21	<i>pulehra</i> , A. Adams	II.	7
<i>concinna</i> , A. Adams	II.	13	<i>pusilla</i> , Arthur Adams	VII.	46
<i>conica</i> , Blainville	II.	9	<i>punctata</i> , A. Adams	V.	31
<i>conoides</i> , Gould	I.	1	<i>pancticulata</i> , A. Adams	IV.	25
<i>costulata</i> , Deshayes	IX.	65	<i>reticosa</i> , A. Adams	V.	33
<i>crassa</i> , J. Sowerby	IV.	26	<i>reticulata</i> , J. Sowerby	V.	33
<i>crassicostata</i> , Sowerby	VI.	38	<i>rosea</i> , Bell	II.	9
<i>crassilabrum</i> , A. Adams	VI.	39	<i>rugosa</i> , Quoy	I.	1
<i>cratula</i> , A. Adams	II.	12	<i>scabricostata</i> , A. Adams	VIII.	54
<i>cucullata</i> , A. Adams	IV.	28	<i>scabricula</i> , A. Adams	IX.	62
<i>Cumingii</i> , Sowerby	VI.	41	<i>scabriuacula</i> , A. Adams	V.	30
<i>curvirostris</i> , Deshayes	II.	9	<i>sculptifilis</i> , A. Adams	VIII.	53
<i>Cuvieri</i> , Savigny	I.	4	<i>scutella</i> , Deshayes	IX.	63
<i>decorata</i> , Deshayes	IX.	68	<i>scutulata</i> , Deshayes	V.	37
<i>depressa</i> , Blainville	I.	3	<i>solibula</i> , Costa	IV.	26
(and fig. 55, Pl. VIII.)			<i>solidula</i> , Philippi	VI.	44
<i>denticulata</i> , A. Adams	II.	6	(and fig. 44 c. Pl. IX.)		
<i>dilecta</i> , A. Adams	IV.	23	<i>spinosa</i> , Deshayes	IX.	66
<i>elongata</i> , Costa	III.	17	<i>stellata</i> , A. Adams	VIII.	56
<i>emendata</i> , Sowerby	IV. VIII.	27	<i>striatula</i> , Quoy	VII.	47
(and fig. 27, b, c, Pl. VIII.)			<i>sulcifera</i> , A. Adams	II.	11
<i>fenestrella</i> , Deshayes	IX.	67	<i>Tasmania</i> , Sowerby	VIII.	58
<i>fissura</i> , Linnæus	V.	33	<i>tenuicostata</i> , Sowerby	I.	2
<i>fissurata</i> , Chénaitz	I.	5	<i>textilis</i> , Gould	IX.	61
<i>fuliginea</i> , A. Adams	II.	10	<i>Thomasi</i> , Crosse	IX.	64
<i>fungina</i> , Gould	I.	1	<i>tumida</i> , Sowerby	IX.	70
<i>galericulata</i> , A. Adams	III.	15	<i>Vanikoroensis</i> , Quoy	V.	34
<i>Guaadaloupensis</i> , Sowerby	VIII.	60	<i>variegata</i> , A. Adams	I.	5
<i>Huzardi</i> , Paysonau	I.	4	<i>variegata</i> , A. Adams	IV.	22
<i>imbricata</i> , A. Adams	VIII.	57	<i>viminea</i> , A. Adams	III. IX.	14
<i>incisura</i> , A. Adams	III.	18			

MONOGRAPH
OF THE GENUS
GNATHODON.

"In contemplation of created things,
By steps we may ascend to God!"—*Milton*.



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GNATHODON.

PLATE I.

GENUS GNATHODON, Gray.

T. b. bipol. asp. paleis, trigona et subtrigona, epidermis iulata; umbones distincti; dentes color distincto costambus duo, parvi, laterales duo, posticus elongatus, anterior emarginatus; color sinistree costambus unus, lateralis duo, posticus elongatus, anterior emarginatus; in pressis cunctis impressio distincta, lateralis, septima ab imbricam trigonam internam d. pressura.

Shell bivalve, inequalve, trigonal or subtrigonal, covered with an epidermis; umbones distant; teeth in the right valve, two cardinal, small, two lateral, posterior elongated, anterior emarginate; of the left valve one cardinal, two lateral, posterior elongated, anterior emarginate; muscular impressions two, lateral; ligament placed in a trigonal internal pit.

Syn. *KANSA*, Desmoulin.

This genus belongs to the *Murex* group, and is remarkable for the emarginate character of the anterior lateral tooth, and for the deep central pit in the hinge for the reception of the cartilage or ligament. None of the species belong decidedly either to salt or fresh water, but the type is from Lake Pontchartrain in New Orleans, where it has been used as an article of food, and three of the other species, which have much thinner shells covered with a lighter epidermis, are found in mud-banks in brackish water in the Gulf of Mexico. One of the remaining two is from Guadeloupe.

Species 1. (Mus. Sowerby.)

GNATHODON CUNEATUS. *Gua. testâ crasso-subtrigoni, crassa, epidermide crassa clivosa iulata; latere antico brevi, rotundatim tumido; umbonibus distinctis, magnis, distantibus; latere postico angulato, ante angulum d. pressa, ad terminum substrata.*

THE CUNEATE GNATHODON. Shell ovate, subtrigonal, thick, covered with a thick olive epidermis;

anterior side short, roundly tumid; umbones elevated, large, distant; posterior side angular, depressed in front of the angle, somewhat beaked at the end.

GRAY, American Journal of Science.

Rangia egyptiaca, Desmoulin.

Hab. Lake Pontchartrain, New Orleans.

The larger the size to which specimens grow, the less oval and more rostrated they become. The smaller specimens, with a lighter and greener epidermis, are more ovate.

Species 2. (Mus. Brit.)

GNATHODON GUADALUPENSIS. *Gua. testâ tenuissimâ, albi, subtrigoni, epidermide tenui, pallide stramineâ iulata; latere postico obliquè biangulato, producto, substrato, ad terminum truncato, latere antico amplo, rotundo.*

THE GUADALUPE GNATHODON. Shell rather thin, white, subtrigonal, covered with a thin, pale straw-coloured epidermis; posterior side obliquely biangular, produced, somewhat beaked, truncated at the end, full, rounded at the anterior side.

PITH, Journal de Conchyliologie.

Hab. Guadeloupe.

Although different looking shells, this species and the following four present all the essential characters of the genus.

Species 3. (Mus. Brit.)

GNATHODON CANSTRANIEL. *Gua. testâ tenuissimâ, albi, subtrigoni, epidermide tenui, pallide stramineâ iulata, rugata; latere postico obliquè biangulato, paulò producto; latere antico brevissimulo, rotundo, margine centrali aequaliter concavo.*

CANSTRANIEL'S GNATHODON. Shell rather thin, white, subtrigonal, covered with a thin, pale straw-

GNATHODON.—PLATE I.

coloured epidermis, inflated; posterior side obliquely biangular, a little produced; anterior side rather short, rounded; ventral margin equally convex.

RECLUZ. — ?

Hab. — ?

This species is perhaps correctly distinguished from the preceding by being shorter, less produced and rostrated at the posterior end, and being on the whole a much more evenly inflated shell.

Species 4.

GNATHODON TRIGONUS. *Gua. testâ trigonâ, compressâ, latere postico biangulato, declivi, ad terminum truncato; umbonibus hamâ tantum elevatis; latere antico brevi, declivi.*

THE TRIGONAL GNATHODON. Shell trigonal, compressed, posterior side biangular, sloped, truncated at the end; umboes not much elevated; anterior side short, sloped.

PETIT. Journal de Conchyliologie.

Hab. California. Gulf of Mexico.

Much more compressed and trigonal than the two preceding.

Species 5. (Mus. Brit.)

GNATHODON ROSTRATUS. *Gua. testâ compressâ, valdè inequilaterali, sublongatâ; latere postico producto, declivi, leviter biangulato, ante angulos marginæ convexo; latere antico brevissimo; umbonibus depressis.*

THE BEAKED GNATHODON. Shell compressed, very inequilateral, rather elongated; posterior side produced and sloped, slightly biangular, with a convex margin in front of the angles; anterior side very short; umboes depressed.

PETIT. Journal de Conchyliologie.

Hab. Gulf of Mexico.

Species 6. (Mus. Sowerby.)

GNATHODON PARVUS. *Gua. testâ parvâ, trigonâ, ventricosi, pallidi; latere postico acutè angulato, post angulam lato, depresso, ad terminum rostrato; latere antico brevi, declivi; umbonibus prominulis, posticè angulatis.*

THE SMALL GNATHODON. Shell small, trigonal, ventricose, pale; posterior side acutely angular, broad and depressed behind the angle, beaked at the end; anterior side short, sloped; umboes prominent, posteriorly angulated.

PETIT. — ?

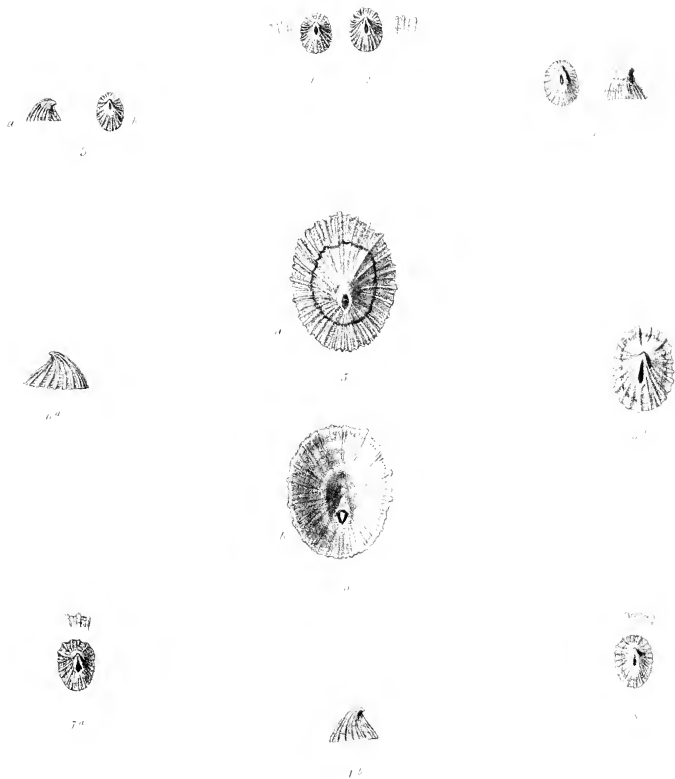
Hab. Mexico.

MONOGRAPH

OF THE GENUS

C E M O R I A.

Beyond the fall of dew -
Deeper than plummet hoar? *Longfellow*



C E M O R I A.

PLATE I.

Genus CEMORIA. *Leach*.

Testa parviformis, ovata, conica, costis radiatis: apice subelevato, postice recurvata: foramen ovale apicem postice, interius levissimi orizontis testae in subelevato.

Shell patelliform, ovate, conical, rayed with ribs; apex entire, posteriorly recurved; foramen placed below the apex and the margin, half-closed within by an arched testaceous lumen.

The species of this genus have a Northern range. In North America, the Northern parts of Britain, Greenland, and Norway, are their habitats chiefly to be found. One species was discovered by Mr. Adams in Japan. Although, like RIMPEX, the shells have the foramen placed half-way between the apex and the margin, unlike that genus they have it internally half vaulted by a shelly plate.

Species 1. (Mus. Brit.)

CEMORIA GALEATA. *Cem. testâ ovata, limbo sinuata, costis numerosis radiatis, submarginatis et parvis interstitiis ovalis leviter latior postice levissimis.*

THE CHESTED CEMORIA. Shell ovate, smoky-brown, rayed with numerous rounded rather smooth ribs, and a few thin interstitial ones posteriorly rather short.

GOULD, United States Expedition. Shells.
Hab. Puget's Sound.

A little dull-coloured species without many characteristic points.

Species 2. (Mus. Brit.)

CEMORIA COGNATA. *Cem. testâ parvâ, albâ, costis rotundis, prominentibus, concentricè rugatis, subdisturbatis radiatâ, interstitiis concentricè levatis, apice acuminato, elevato.*

THE COGNATE CEMORIA. Shell small, white, rayed with rounded, prominent, concentrically wrinkled,

rather distant ribs, with concentrically ridged interstices; apex acuminated, elevated.

GOULD, Shells of the United States Expedition.
Hab. Orange Harbour, Concheary.

A sharp acuminated species.

Species 3. (Fig. a, b, Mus. Brit.)

CEMORIA CONICA. *Cem. testâ parvâ, elevatâ, conicâ, costis parvis, rotundis, alternatis, concentricè striatis radiatâ; dorso elevato, apice leviter recurvo.*

THE CONICAL CEMORIA. Shell small, elevated, conical, rayed with small, rounded, alternating, concentrically striated ribs; back elevated, apex much recurved.

FORBESY, *Amérique Méridionale*, p. 471, Pl. 78.
Hab. Central America.

Species 4. (Fig. a, b, Mus. Brit.)

CEMORIA FASCIATA. *Cem. testâ albâ, oratâ, conica, altissimâ, costis subangulatis, molibus, alternatis, tenuibus radiatâ; apice elevato, post-mediana, paulo recurvo; dorso anticè subarcuato, posticè fere perpendicularitè declivi.*

THE HIGH-TOPPED CEMORIA. Shell white, ovate, conical, much elevated, rayed with rather angular, nodose, alternative, thin ribs; apex elevated, post-median, a little recurved; back a little arched anteriorly, sloped nearly perpendicularly behind.

A. ADAMS, *Proc. Zool. Soc.*, 1851, p. 228.
Hab. —?

The most elevated of all the species.

Species 5. (Fig. a, b, Mus. Brit.)

CEMORIA OCCULLATA. *Cem. testâ elevatâ, fulvâ, angulâ, ovate juniori subapicè acuminatâ; costis inæqualibus, angulatis, concentricè tenuiter rugatis.*

radiatâ, interstitiis concentricè striatis; apicè ante-mediani; lineâ dorsali anticè declivi, rectius-culo.

THE HOODED CEMORIA. Shell elevated, fulvous, large, in a young stage almost spirally acuminated; rayed with unequal, angular concentrically finely wrinkled ribs, with concentrically striated inter-stices, apex ante-median, dorsal line sloped, rather straight.

GOULD. United States Expedition. Shells, p. 14.

Hab. ———!

This shell gives all the characteristics of the genus on a larger scale than the original type.

Species 6. (Fig. a, b, Mus. Brit.)

CEMORIA NOBILIS. *Cem. testâ brevissimâ, ovatâ, conicâ elevatissimâ; a late junctura ferè spirâliter acuminatâ, costis octalveim circâ distantibus, brevibus, majoribus, et intermediis tenuissimis radiatâ; apicè acuminato, p. declerato; dorso utrinque valdè declivi.*

THE NOBLE CEMORIA. Shell rather short, ovate, conical, much elevated; in a young stage almost spirally acuminated; rayed with about eighteen distant, smooth, larger, and some very thin intermediate ribs; apex acuminated, much elevated, with the back on both sides much sloped.

A. ADAMS. Proc. Zool. Soc.

Hab. Okosiris, Japan.

Species 7. (Fig. a, b, Mus. MacAndrew.)

CEMORIA NOACHIANA. *Cem. testâ albâ, conicâ, elevatâ, posticè subexpansâ, anticè magis angustatâ; costis inæqualibus, laciniâculis posticè distantibus, anticè nonnisi numerosis radiatâ; apicè elevato, post-mediani.*

THE NOACHIAN CEMORIA. Shell white, conical, elevated, posteriorly rather expanded, narrower anteriorly; rayed with unequal, rather smooth, posteriorly distant, anteriorly more numerous ribs; apex elevated, post-median.

LINNEUS, Mantissa, 554.

Patella fissurella, Muller.

Patella aperta, Montagu.

Rimula Flemingii, Macgillivray.

Cemaria princeps, Michaels.

Hab. Northern Europe.

Species 8. (Mus. Brit.)

CEMORIA FALKLANDICA. *Cem. testâ ovatâ, albâ, elevatâ, costis subdistantibus, concentricè striatis radiatâ; apicè recurvo, elevato, post-mediani.*

THE FALKLAND CEMORIA. Shell ovate, white, elevated, rayed with rather distant, concentrically striated ribs; apex recurved, elevated, post-median.

A. ADAMS. Sowerby's Thesaurus. Fissurellida, Cemoria, Sp. 7, Plate X, fig. 14.

Hab. Falkland Islands.

The ribs are more distant and equal than those of *Cemaria Noachiana*, and the oval outline is as broad anteriorly as posteriorly.

MONOGRAPH

OF THE GENUS

R I M U L A.

His waiting hand
Nothing imperfect or to be left
Of all that He created. —*Milton*



RIMULA.

PLATE I.

GENUS RIMULA, *Defin.*

Rimula *multilobata*, *tenax*, *caucellata*, *apice recurva*,
moderate elevata, *costis radiantibus*, *dorso elevato*, *apice acuto*
caucellata, *caucellata*.

Shell patelloidum, thin, cancellated; apex recurved,
back arched; fissure simple, intermediate between
the apex and the margin.

The recent species of this interesting little genus,
formerly known only in a fossil state, are, with the ex-
ception of one from Macatium, found in the Philippine
Islands, and first collected there by the late Mr. Cuming.

The gradation in the several genera of Fissurellidae
is marked in the position of the fissure. In *Urosalpinx*,
it is simply a hole in the apex; in *Coccyzina* it is near
the front of the apex, leaving it entire and generally
projected, and being vaulted over by a little septum on
the inside; in *Coccyzina* the septum half covers the
fissure on the inside, but the latter is removed to half-
way between the apex and the margin; in *Rimula* the
fissure is in a similar situation, but has no internal
septum; then in *Esca* *tesha* the fissure, commencing
about halfway down the dorsal ridge, remains open to
the margin and graduates through many species in
commencing nearer and nearer to the margin until
it becomes lost in an almost imperceptible sinus. In
the genus *Zachvat*, there is an internal septum near the
posterior margin and a fissure, like that of *Esca* *tesha*,
in the anterior margin.

SP. FIG. 1. (Fig. 1, 2, Mus. Brit.)

RIMULA INQUISITA. *Rim. testâ ovato-oblongâ, albâ,*
moderate elevatâ, costis radiantibus tenaxibus, et lirâ
concentricâ concentricâ cancellatâ; dorso arcuato,
apice rotundâ recurvo.

THE INQUISITE RIMULA. Shell ovate-oblong, white,
moderately elevated, neatly cancellated with thin
radiating ribs and concentric ridges; back arched,
apex turned far back.

A. ADAMS, Proc. Zool. Soc., 1851.

Hab. Several of the Philippine Islands.

This is the largest of the species and of exquisite
sculpture.

Species 2. (Mus. Brit.)

RIMULA CUMINGII. *Rim. testâ parvâ, fulvâ, ovatâ,*
costis radiantibus rotundis concentricâ rugatis et
lirâ concentricâ cancellatâ, dorso elevato; apice
acutâ recurvo.

CUMING'S RIMULA. Shell small, fulvous, ovate, can-
cellated with rounded concentrically wrinkled ribs
and concentric ridges; back elevated; apex sharply
recurved.

A. ADAMS, Proc. Zool. Soc., 1851.

Reana *chikoma*, Gould.

Hab. Eastern Seas.

Species 3. (Mus. Brit.)

RIMULA PERSINGII. *Rim. testâ parvâ, albâ, minute*
cancellatâ, costellis radiantibus prominentibus
duplus celsis marginem anteriorem convergentibus,
dorso elevato, apice acutâ, recurvo.

THE NEIGHBORING RIMULA. Shell small, white,
minutely cancellated; radiating ribs more pro-
minent; two converging towards the anterior
margin; back elevated; apex acute, recurved.

A. ADAMS, Proc. Zool. Soc., 1851.

Hab. Calapan, Philippines.

Species 4. (Mus. Brit.)

RIMULA CAMINATA. *Rim. testâ parvâ, albâ, costellis*
tenaxibus, confertis radiatâ, interstitiis minutissimâ
forcolatis; apice valdè recurvo, planulatum
curvato.

THE NEELED RIMULA. Shell small, white, rayed with

RIMULA.—PLATE I.

thin, close ribs, with interstices very minutely fitted; apex strongly recurved, flatly keeled.
 A. ADAMS. Proc. Zool. Soc., 1851
Hab. Misamis, Isl. Mindanao, Philippines.

A curious characteristic of this little shell is a sort of flattened keel extending from the coiled apex to the fissure. Mr. Adams describes this as being formed by the convergence of several apical rays.

Species 5. (Mus. Brit.)

RIMULA MAZATLANICA. *Rim. testis minuti, pallidi julvæ, depressæ, oblongæ, costis crassis, subimbricatis, subdistantibus radiatæ.*

THE MAZATLAN RIMULA. Shell minute, pale fulvous, depressed, oblong, rayed with thick, subimbricated, rather distant ribs.

CARPENTER (P. P.) Shells of Mazatlan.
Hab. Mazatlan.

MONOGRAPH
OF THE GENUS
CARDILIA.

"Full Nature swarms with life,
On wondrous mass,
Of animals or atoms organized."—*Thomson*



CARDILIA.

1876.

MISS CARDILIA, D.

Dear Madam,
I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the above named subject.

I have the honor to inform you that the same has been forwarded to the proper authorities for their consideration.

I am, Madam, very respectfully,
Your obedient servant,
J. M. CARDILIA.

Very respectfully,
J. M. CARDILIA.

MISS CARDILIA, D.

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Very respectfully,
J. M. CARDILIA.

MONOGRAPH

OF THE GENUS

CRANOPSIS AND ZEIDORA.

"He prayeth best, who loveth best
All things both great and small."—*Coleridge*.



24



25



26



27

Sidera



28



29



30

CRANOPSIS AND ZEIDORA.

Genus CRANOPSIS. A. Adams.

Testa capuliformis, orbis cancellata; apice recurvo, in tegro; fissura in medio posita, inter apicem et marginem anticum, fornice intero arcuato.

Shell cap-shaped, cancellated outside; apex recurved, entire; fissure placed midway between the apex and the anterior margin, internal vault arched.

The only two species known of this genus are from Japan. The position of the foramen is the same as in the preceding genus, *Ravata*, but, unlike that genus, it has the internal vaulted septum of *Camaro*.

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

CRANOPSIS PLELEPS. *Cr.* testâ pileiformi, costillis radiantibus crenulatis, apice posticè valde incurvato; fissurâ anticâ acutâ; margine posticè reflecto, dorso planulatio quasi-curvato.

THE CAP-SHAPE D CRANOPSIS. Shell cap-shaped, with crenulated radiating riblets; apex much incurved posteriorly; fissure anteriorly sharp; margin posteriorly reflected; back with a kind of flattened keel.

A. ADAMS. Sowerby's Thesaurus. Fissurellidae. Cranopsis, sp. 1, fig. 1, 2.

Hab. Mino-Sima, Japan.

The apex of this shell is coiled and extends posteriorly a little beyond the margin.

Species 2. (Fig. a, b, Mus. Brit.)

CRANOPSIS PILLA. *Cr.* testâ conicâ, acuminatâ, costellis radiantibus et liris minutis concentricis cancellatâ; apice acuminato, recurvo, dorso antè posticèque declivi.

THE HELMET-SHAPE D CRANOPSIS. Shell conical, acuminated, cancellated with radiating riblets and minute concentric ridges; apex acuminated, recurved, back sloped anteriorly and posteriorly.

A. ADAMS. Annals and Magazine of Natural History for 1860.

Hab. Mino-Sima, Japan.

Genus ZEIDORA. A. Adams.

Testa patelliformis, oblonga, depressa, orbis cancellata; apice post-marginali; margine antico fissurato.

aperturâ ovato, posticè lamina septiformi, transversâ, subtriangulâ declivi.

Shell patelliform, oblong, depressed, cancellated on the outside; apex post-marginal, anterior margin fissured; aperture ovate, posteriorly divided by a septiform, transverse, somewhat trigonal lamina.

The *Zeidora*, like the *Cranopsis*, are comparatively recent discoveries associated with the name of Arthur Adams and with the shores of Japan. Having a septiform plate, like that of *Cocculoda* in form, but perhaps more analogous to the small vaulted lamina under the foramen in *Camaro*, and yet having the marginal slit of *Emarguella*, this curious little genus affords an interesting example of the ever-varying forms of Nature.

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

ZEIDORA ELIOTIANA. *Z.* testâ oblongâ, dorso convexâ, liris elevatis radiantibus et liris concentricis pulcherrimè decussatâ, aperturâ margine crenulatâ; fissurâ marginali angustâ, oblongâ.

THE BELT-CLEAVE D ZEIDORA. Shell oblong, back convex, very beautifully decussated with raised radiating lines and concentric ridges; aperture crenulated at the margin; marginal fissure narrow, oblong.

A. ADAMS. Ann. and Mag. of Nat. Hist.

Hab. Mino-Sima, Japan.

The form is more convex and the fissure more narrow and deeply cut than in the next species.

Species 2. (Mus. Brit.)

ZEIDORA CALCEOLINA. *Z.* testâ oblongâ, depresso-convexâ, costellis radiantibus et liris concentricis eleganter cancellatâ, sulco medio lateribus elevatis, apice posticè declivo, septo margine acuto, integro.

THE SLIPPER ZEIDORA. Shell oblong, depressed-convex, elegantly cancellated with radiating riblets and concentric ridges; middle sulcus with elevated sides; apex bent down posteriorly; septum with a sharp, entire margin.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1860.

Hab. Mino-Sima, Japan.

The dorsal groove forms a sort of broad double-edged keel, pitted between the two edges.

MONOGRAPH

OF THE GENUS

TYPHIS.

The "Cruciate of the waves"

—*Coloridge*



17



22



24



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28

TYPHIS.

PLATE I.

Genus TYPHIS. *Montfort*

Testa fusiformis, canaliculata, varicosa, varicibus utroque angulo tribus; anfractibus angulatis, ad angulum ante utraque varicem tubum penetrantibus; tubus intus penetrantibus, ad apicem apertis, cavati clauso. Operculum corneum, concentricum, nucleo subterminali.

Shell fusiform, with a canal, varicose; varices three on each whorl; whorls angular, bearing a tube before each varix at the angle; tubes penetrating within, open at the apex; canal closed. Operculum horny, concentric with nearly terminal nucleus.

A tube on the angle of the whorls in front of each varix, sometimes joined to it, but more generally distinct from it and placed half-way between the two varices, forms the distinguishing character of the shell of this genus. In other respects they do not differ from Murice with three varices. The type species, *T. Sowerbyi*, is a Mediterranean shell. The other species are from Western Columbia, Western Africa, Japan, Borneo, and New Zealand.

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

TYPHIS GRANDIS. *Typ. testâ magna, solida, inter varices purpureo-castaneâ, anfractibus canaliculo angulatis, varicibus fulvis, crassis, ad utrumque angulum, intus penetrantibus, ad apicem apertis, tubis brevissimis, natis inter varices medianis, canali lato; apertura parva.*

THE LARGE TYPHIS. Shell large, solid, purple-chestnut between the varices; whorls roundly-angular; varices fulvous, thick, curled at the edge, expanded at the canal; tubes rather short, large half-way between the varices; canal broad; aperture wide.

A. ADAMS. Proc. Zool. Soc., 1865.

Hab. —?

This large solid shell is in every way typical of the genus.

Species 2. (Fig. a, b, Mus. Brit. in Brit.)

TYPHIS CORONATUS. *Typ. testâ oblongâ, pallidâ fulvâ, anfractibus superne subrotundis; varicibus crassis, spiritaliter latis, ad suturam uncinatis; labis brevissimis, parte varicem succeedingem locatis; canali lato, recto, ad terminum truncato.*

THE CORONATE TYPHIS. Shell oblong, pale fulvous; whorls rounded above; varices thick, spirally ridged, hooked at the suture; tubes very short, placed near the succeeding varix; canal broad, straight, truncated at the end.

BODDLE. Proc. Zool. Soc., 1832.

Hab. Caracas Bay.

This interesting species has remained represented by a unique and somewhat undeveloped shell in the Cunningham collection at the British Museum.

Species 3. (Mus. Brit.)

TYPHIS FIMBRIATUS. *Typ. testâ magna, tenuissimâ, oblongâ; anfractibus inter varices subflavide, intus medium costam infuscatis; prope varices purpureo-fuscatis; varicibus cepangis, ad finem radiatum fimbriatis, superne cuneatis, dorso crispatis, tubis magnis, prope varicem succeedingem locatis; canali latissima.*

THE FIMBRIAL TYPHIS. Shell large, rather thin, oblong; whorls yellowish between the varices, with a single band of chestnut below the middle; with a purple band near the varices; varices expanded, fringed in rays on the face, cuneate above, curled at the back; tubes large, placed near the succeeding varix; canal very broad.

A. ADAMS. Proc. Zool. Soc., 1865.

Hab. —?

Remarkable for the broad expansion of the fringed varix.

February, 1874

TYPHIS.—PLATE I.

Species 4. (Fig. a, b, Mus. Cum. in Brit.)

TYPHIS CUMINGI. *Typ. testâ clavata, pallidè fulvâ, inter varices purpureâ, castaneo maculatâ; infratubis superioribus inflatis, inferioribus angustatis, dimidiatum inter varices tuberculis elongatis cum tubis convexis gerentibus; varicibus angustatis, ad saturam aculeatis, ad canalium hinc continuis, ultimo ad lineam imbricata; canali elongato, angustato.*

CUMING'S TYPHIS. Shell clavate, pale fulvous, purple between the varices, chestnut-spotted; whorls inflated above, narrow below, bearing elongated tubercles connected with the tubes half-way between the varices; varices angular, aculeated at the suture, not continued at the canal, the last fringed on the face; canal long, narrow.

BRODERIP, Proc. Zool. Soc., 1832.

Hab. Bay of Caraccas.

Resembling *Murex Haustellum* in form





10^b



10^a



11^c



11



12^a



12^b



13



14^a



14^b



15

TYPHIS.

PLATE III.

Species 10. (Mus. Brit.)

TYPHIS ARCATUS. *Typ. testâ brevi, ovata, fossâ vel foveolâ; varicibus arcuatis, tumidis, ad tubas proevidentes in uno junctis; spirâ elevatâ; canali latiusculo, ad terminum attenuato recurvo.*

THE ARCHED TYPHIS. Shell short, ovate, brown or slightly fulvous; varices arched, tumid, joined in one to the preceding tubes; spine elevated; canal rather broad, attenuated towards the end, recurved.

HINDS. Voyage of the Sulphur, Mollusen, p. 10, Pl. III., f. 5, 6.

Typus Japonicus, A. Adams.

Hab. Cape of Good Hope—Japan.

In this species the duplication of the tube is less conspicuous than in *Typus duplicatus*.

Species 11. (Mus. Angas.)

TYPHIS CLERIL. *Typ. testâ fusiformi, pallidâ fulvâ, fusca obscure fasciatâ; anfractibus superâ rotundis, infâ attenuatis; varicibus digitatis digitis uncinatis; tubis intermediis, distinctis; canali elongato, recurvo.*

CLERY'S TYPHIS. Shell fusiform, pale fulvous, obscurely banded with brown; whorls rounded above, attenuated below; varices fingered, fingers uncinated; tubes intermediate, distinct; canal elongated, recurved.

PETIT. *Révue Zoologique*, 1846.

Hab. New Zealand.

Species 12. (Fig. a, b, Mus. Nolis.)

TYPHIS EXPANSUS. *Typ. testâ latâ, pallidâ fulvâ, subturbinata; anfractibus superâ angulatis, supra angulata pluvalatis; varicibus angulatis, sperâ in spinam acuminatam elevatis, ultimo latè expanso.*

sperâ simplicato, retrorsum arcuato, ad marginem acute linguato; canali lato, breviusculo; tubis prope varices precelescentes locatis, retrorsim curvis.

THE EXPANDED TYPHIS. Shell broad, pale fulvous, somewhat turbinate; whorls angular above, flattened above the angle; varices angular, raised above in an acuminated spine, the last broadly expanded, with a single fold above, arched backwards, sharply fluted at the edge; canal broad, rather short; tubes placed near the preceding varices, curved backwards.

SEWERY (*Journ.*) 1874.

Hab. ———?

Species 13. (Mus. Brit.)

TYPHIS QUADRATUS. *Typ. testâ subquadratâ, solidâ, inter varices fulvis, fusco striptis; anfractibus pyriformibus, tubis intermediis, breviusculis; varicibus crassis, albis, pallidè striptis, medio fimbriatis, sperâ uncinatis; canali lato, prope terminum angusto, obliquè retrorso.*

THE SQUARE TYPHIS. Shell subquadrate, solid, fulvous between the varices, striped with brown; whorls pyriform; tubes intermediate, rather short; varices thick, white, with pale stripes, fringed in the middle, hooked above; canal broad, narrow near the end, turned obliquely backwards.

HINDS. Voyage of the Sulphur, Mollusca, p. 10, Pl. III., IV., figs. 5, 6.

Hab. Gulf of Nicoya, Bay of Guayaquil.

Species 14. (Mus. Angas.)

TYPHIS YATESII. *Typ. testâ fusiformi, brevi, pallidè roseâ; anfractibus pyriformibus; varicibus pinnatis, medio leviter linguatis, infâ unilobatis, supra elevatis, acutè uncinatis; tubis intermediis, breviusculis, distinctis; canali brevi, lato.*

February, 1874.

TYPHUS.—PLATE III.

YATES'S TYPHUS. Shell fusiform, short, pale rose; whorls pyriform; varices pinnated, slightly fluted in the middle, with a single lobe below, elevated above, sharply uncinated; tubes intermediate, rather short, distinct; canal short, broad.

ADAMS, Proc. Zool. Soc.

Hab. Australia.

Species 15. (Mus. Brit.)

TYPHUS MONTEFORTI. *Typ. testâ fusiformi, parvi, pallidè rosâ; anfractibus pyriformibus; spirâ ele-*

vati; varicibus laminatis, cœtantibus, medio angulatum plucatis, supernè acutè uncinatis, tubis prope varices precedentes locatis, ultimis elongatis; canali angustiusculo, subrecurvo.

MONTEFORT'S TYPHUS. Shell fusiform, small, pale rose; whorls pyriform; spire elevated; varices laminated, outstanding, angularly plaited in the middle, sharply hooked above; tubes placed near the preceding varices, the last elongated; canal rather narrow, slightly recurved.

A. ADAMS, Ann. and Mag. of Nat. Hist.

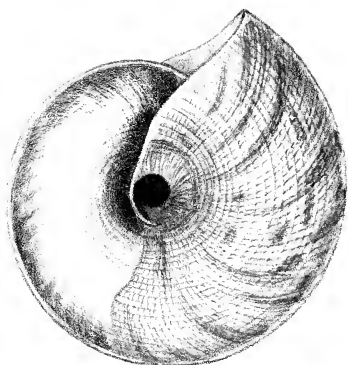
Hab. Japan.

MONOGRAPH

OF THE GENUS

PLEUROTOMARIA.

1881. 1882. Green Island of the deep.
Where Pleurotomaria glabra is found? *Greenell*



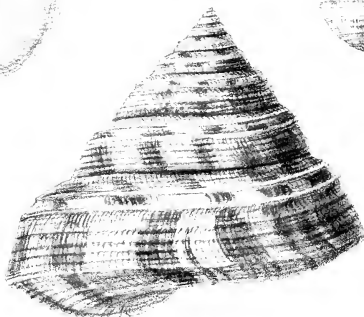
1a



2a



2b



1b

MONOGRAPH
OF THE GENUS
GALEOMMA.

"All which are made with wondrous wise respect,
And all with admirable beauty deckt" *Spenser*



10



11



12



13

GALEOMMA.

PLATE I.

Genus GALEOMMA, Turton

Species 2. (Mus. Brit.)

Platyostoma *alba*, Turton, Proc. Zool. Soc., 1855, p. 170.
Mytilus *alba*, Turton, Proc. Zool. Soc., 1855, p. 170.
Mytilus *alba*, Turton, Proc. Zool. Soc., 1855, p. 170.
 Proc. Zool. Soc., 1855, p. 170.

Shell ovate, sub-oval, the ventral valve, dorsally granose striated, widely gaping at the ventral margin. Cardinal process on the ventral valve. Muscular scars on the ventral valve. Position of the muscle scars.

Compare the species with *Saxidomus* *alba* of the Channel Islands, which has a very wide inflated ventral valve and a very wide hiatus at the ventral margin. The typical *Galeomma* *alba* is found in the Channel Islands, as well as on some specimens from Great Britain, and other parts of Australia, and all the rest were collected by Valenciennes in the Philippine Islands. The animal attached to rocks by a byssus with its valves open, opening at their dorsal edge uppermost.

Species 1. (Phil. Acad., Mus. Nobis.)

GALEOMMA TURTONI. *Gul. testâ alba, elongata, sub-ovata, unimantâ, conspicua, striata, irregulariter divergentibus, valvâ laterali emulso pleuroque contractâ, lato hiatus.*

TURTON'S GALEOMMA. Shell white, elongated, unimantled at both ends; conspicuously sculptured with raised granose, irregularly divergent striae; valves generally contracted in the middle, broadly gaping.

SOWLE'S, Genera of Shells.

Hab. Guernsey; Esmont.

The slight central contraction in the valves seen in some specimens, is not visible in all.

GALEOMMA TACUSIRIANA. *Gul. testâ pallidâ fulca, ovata, striatâ, sub-ovalâ contractâ; unimantibus divergentibus; laterali antice paulo longiori, angustiore, laterali postice magis inflata.*

TACUSIRIAN GALEOMMA. Shell pale fulvous, widely striated, contracted in the middle; ends of the anterior side a little longer, narrower; posterior side more inflated.

DISHAY'S, Proc. Zool. Soc., 1855, p. 170.

Hab. Isl. Samar, Philippines.

The sculpture is so fine that it only appears in part when closely examined.

Species 3. (Mus. Brit.)

GALEOMMA ANASIA. *Gul. testâ albâ, unimantibus striatâ; elongatâ, angustâ, tenuibus subrotundâ; angustâ centrali contractâ.*

THE XANUS GALEOMMA. Shell whitish, very finely striated; elongated, narrow, ends rather rounded; ventral margin rather straight.

DISHAY'S, Proc. Zool. Soc., 1855, p. 170.

Hab. Isl. Bohol, Philippines.

Species 4. (Mus. Brit.)

GALEOMMA FORMOSA. *Gul. testâ aurantiâ, elongatâ, angustâ unimantâ, tenuiter striatâ, paulo antice magis contractâ; laterali postice longiori magis inflata.*

THE BEAUTIFUL GALEOMMA. Shell orange, elongated, unimantled at each end, finely striated, contracted a little before the middle; posterior side a little longer and more inflated.

DISHAY'S, Proc. Zool. Soc., 1855, p. 170.

Hab. Australia.

The form of this species resembles that of the typical one. The colour of the finer striae distinguishes it.

GALEOMMA.—PLATE I.

Species 5. (Mus. Brit.)

GALEOMMA CHLOROLEUCA. *Gal. testâ elongatâ, tenuis-*
simè striatâ, pallidè auratâ, molè contractâ;
terminibus obtusis hiatus angustissimulo.

THE ORANGE-WHITE GALEOMMA. Shell elongated, very finely striated, pale orange, contracted in the middle; ends obtuse, hiatus rather narrow.

DESHAYES, Proc. Zool. Soc., 1855, p. 170.
Hab. Isl. Samar, Philippines.

This shell very nearly resembles *Sciutilla antiqua* of general appearance, but on close inspection it is found to be striated, and therefore a *Galeomma*.

Species 6. (Fig. a, b, Mus. Brit.)

GALEOMMA INFLATA. *Gal. testâ brevissimâ, pallidè fulvâ,*
tenuiter granoso-striatâ, molè contractâ, valvis
arcuatis, ad marginem ventralis latissimè hiatis

THE INFLATED GALEOMMA. Shell rather short, pale fulvous, finely granosely striated, contracted in the middle; valves arched, very widely gaping at the ventral margin.

DESHAYES, Proc. Zool. Soc., 1855, p. 170.

Species 7. (Mus. Brit.)

GALEOMMA ARGENTA. *Gal. testâ parvâ, oblongâ, fere*
glâ, tenuiter striatâ, ad terminos subtruncatâ,
atque angustâ; valvis arcuatis.

THE SILVERY GALEOMMA. Shell small, oblong, almost glaucous, finely striated, rather truncated at the ends; valves within; valves arched.

DESHAYES, Proc. Zool. Soc., 1855, p. 169.
Hab. Isl. Samar, Philippines.

This species is more finely striated and more truncated at each end than *Galeomma Turtouli*. It has a peculiar silvery lustre inside.

Species 8. (Mus. Brit.)

GALEOMMA INDECORA. *Gal. testâ pallidè fulvâ, oblongâ,*
tenuissimè striatâ; latere antico brevissimulo, obtusè
truncato, paulo contracto; latere postico obliquè
inflato.

THE PLAIN GALEOMMA. Shell pale fulvous, oblong, very finely striated; anterior side rather short, obtusely truncated, a little contracted; posterior side obliquely inflated.

DESHAYES, Proc. Zool. Soc., 1855, p. 169.
Hab. Isl. Masbate, Philippines.

But for the very fine striae that may be seen in parts of this shell, it would seem to belong rather to *Sciutilla* than to this genus.

Species 9. (Fig. a, b, Mus. Brit.)

GALEOMMA MACROCHISMA. *Gal. testâ brevis, pallidè*
fulvâ, conspicuè granoso-striatâ; latere antico
obtusissimo; latere postico obtuso; valvis
molè contractis, arcuatis, latissimè hiatis.

THE WIDE GAPING GALEOMMA. Shell short, pale fulvous, conspicuously granosely striated; anterior side rather acuminate; posterior side obtuse; valves contracted in the middle, arched, very widely gaping.

DESHAYES, Proc. Zool. Soc., 1855, p. 171.
Hab. Isl. Masbate, Philippines.

MONOGRAPH
OF THE GENUS
SCINTILLA.

Lead in the air
Of the wide world, since these were
The times, when *scintilla* was
The character, not, much less, their *scintilla* 5



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SCINTILLA.—PLATE I.

THE PHILIPPINE SCINTILLA. Shell ovate, whitish, compressed, a little gaping at each end; posterior side a little the shorter, rather obliquely truncated; ventral margin anteriorly convex.

DESBAYES. Proc. Zool. Soc., 1855, p. 176.

Hab. Philippine Islands.

Species 6. (Mus. Brit.)

SCINTILLA CANDIDA. *Sci. testâ lactiâ, ovatâ, clausâ, tumidiusculâ, obliquâ; latere postico angustiusculo; margini ventrali anticè convexo.*

THE WHITE SCINTILLA. Shell milk-white, ovate, closed, rather tumid, oblique; posterior side rather narrow, ventral margin anteriorly convex.

DESBAYES. Proc. Zool. Soc., 1855, p. 177.

Hab. Isl. Boreas, Philippines.

Species 7. (Mus. Brit.)

SCINTILLA TENUIS. *Sci. testâ ovatâ, lactiâ, clausâ subcompressâ, latere postico breviusculo, subtruncato; margine ventrali aequaliter convexo.*

THE THIN SCINTILLA. Shell ovate, milk-white, closed, subcompressed, posterior side rather short, subtruncated; ventral margin equally convex.

DESBAYES. Proc. Zool. Soc., 1855, p. 176.

Hab. Isl. Sama, Philippines.

More ovate, thinner, and less oblique than *Scintilla candida*.

Species 8. (Fig. a, b, Mus. — ? Copied.)

SCINTILLA JUKESI. *Sci. testâ magna, subcompressâ, lactiâ, ovato-suboblongâ, concentricè leviter rugatâ, marginibus terminalibus paulò hiantibus, subtruncatis; margine ventrali rectiusculo.*

JUKES'S SCINTILLA. Shell large, rather compressed, milk-white, ovate, rather oblong, concentrically slightly wrinkled, terminal margins a little gaping, rather truncated; ventral margin rather straight.

DESBAYES. Proc. Zool. Soc., 1855, p. 174.

Hab. Australia.



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SCINTILLA.

PLATE II.

Species 10. (Mus. Brit.)
SCINTILLA *SCINTILLATA*. *Sci. test. ovata, con-*
spica, subquadrate; margine dorsali ad latera
angulata, obliqua.

TESTA.—Length, 1.5 line. Shell white, closed, slender, shorter in front, subtruncated, posteriorly more rounded, ventral and dorsal margins rather straight.

DISSEY.—Proc. Zool. Soc., 1850, p. 177.
Hab.—London.

This species resembles *S. test. ovata*, but is brighter colored, and has a more rounded shell.

Species 11. (Mus. Brit.)
SCINTILLA *SCINTILLATA*. *Sci. test. ovata, con-*
spica, subquadrate; margine dorsali ad latera
angulata, obliqua.

TESTA.—Length, 1.5 line. Shell white, closed, slender, shorter in front, subtruncated, posteriorly more rounded, ventral and dorsal margins rather straight.

DISSEY.—Proc. Zool. Soc., 1850, p. 177.
Hab.—London.

This species resembles *S. test. ovata*, but is brighter colored, and has a more rounded shell.

Species 11. (Mus. Brit.)

SCINTILLA *SCINTILLATA*. *Sci. test. ovata, con-*
spica, subquadrate; margine dorsali ad latera
angulata, obliqua.

TESTA.—Length, 1.5 line. Shell white, closed, slender, shorter in front, subtruncated, posteriorly more rounded, ventral and dorsal margins rather straight.

Species 12. (Mus. Brit.)

SCINTILLA *SCINTILLATA*. *Sci. test. ovata, con-*
spica, subquadrate; margine dorsali ad latera
angulata, obliqua.

TESTA.—Length, 1.5 line. Shell white, closed, slender, shorter in front, subtruncated, posteriorly more rounded, ventral and dorsal margins rather straight.

DISSEY.—Proc. Zool. Soc., 1850, p. 177.
Hab.—London.

This species resembles *S. test. ovata*, but is brighter colored, and has a more rounded shell.

Species 13. (Mus. Brit.)

SCINTILLA *SCINTILLATA*. *Sci. test. ovata, con-*
spica, subquadrate; margine dorsali ad latera
angulata, obliqua.

TESTA.—Length, 1.5 line. Shell white, closed, slender, shorter in front, subtruncated, posteriorly more rounded, ventral and dorsal margins rather straight.

DISSEY.—Proc. Zool. Soc., 1850, p. 181.
Hab.—London Bay.

Species 14. (Mus. Brit.)

SCINTILLA *SCINTILLATA*. *Sci. test. ovata, con-*
spica, subquadrate; margine dorsali ad latera
angulata, obliqua.

SCINTILLA.—PLATE II.

paulò hianti; margini ventrali clauso, convexo-
insculo.

THE TIMOR SCINTILLA. Shell orange, compressed,
 subquadrate; dorsal margin a little gaping
 at the sides; ventral margin closed, a little
 convex.

DESHAYES, Proc. Zool. Soc., 1855, p. 174.

Hab. Timor.

One of the broad scale-like species, which nearly all
 have the ventral margins closed.

Species 15. (Mus. Brit.)

SCINTILLA CUVIÈRE. *Sci. testâ aurantii, subcircu-
 lari, compressâ; margine dorsali utriusque hianti,
 latere postico rotundo; latere antico obliquè sub-
 truncato.*

CUVIÈRE'S SCINTILLA. Shell orange, rather circular,
 compressed; dorsal margin gaping at both ends;
 posterior side rounded; anterior side obliquely
 subtruncated.

DESHAYES, Proc. Zool. Soc., 1855, p. 171.

Hab. Isl. Bohol, Philippines.

Differing from the preceding species in its more
 rounded form.

Species 16. (Mus. Brit.)

SCINTILLA OWENI. *Sci. testâ pallidè fulvâ, clausâ,
 oblongâ, fasciis opacis concentricis variatâ; latere
 antico brevi, truncato.*

OWEN'S SCINTILLA. Shell pale fulvous, closed, oblong,
 varied with opaque concentric bands; anterior
 side short, truncated.

DESHAYES, Proc. Zool. Soc., 1855, p. 170.

Hab. Isl. Zebu, Philippines.

More straightly oblong and truncated than *Scintilla*
Borneensis.

Species 17. (Mus. Brit.)

SCINTILLA PUBICA. *Sci. testâ oblongo-subovata, roseâ;
 latere antico brevi, truncato; margine ventrali
 paulò hianti, rectiusculo; latere postico-dorsali
 breviter declivi.*

THE BLUSHING SCINTILLA. Shell oblong-subovate, rose-
 coloured; anterior side short, truncated; ventral
 margin a little gaping, rather straight; postero-
 dorsal side slightly sloped.

DESHAYES, Proc. Zool. Soc., 1855, p. 178.

Hab. Isl. Zebu, Philippines.

Species 18. (Mus. Nobis.)

SCINTILLA FORBESI. *Sci. testâ fulvo-lutescenti, oblongâ,
 subovata, tumidiusculâ; latere antico breviusculo,
 subtruncato; margine ventrali paulò hianti.*

FORBES'S SCINTILLA. Shell yellowish buff, oblong, sub-
 ovate, rather tumid; anterior side rather short,
 subtruncated; ventral margin a little gaping.

DESHAYES, Proc. Zool. Soc., 1855, p. 170.

Hab. Singapore.

More equally tumid and more oval than the Bornean
 species *Scintilla aurantiana.*



SCINTILLA.

PLATE III.

Species 19. (Figs. 10, 11, Mrs. Nolas.)

SCINTILLA AMERICANA. *Sci. testâ parvâ aurantâ et alba, tenui, obliquâ, concentricè punctulatâ, subdiaphanâ, subglobatâ, latere postico leviori, ad truncum subtruncatâ, prope marginem ventralem subtruncatâ, latere antico leviori, medio contractâ, angulo ventrali plus minusve leviori.*

THE AMERICAN SCINTILLA. Shell pale orange or white, thin, oblong, very minutely punctured, subdiaphanous, subglobatoid; posterior side rather the longer, rather sloped at the end, slightly acuminate near the ventral margin; anterior side a little truncated, middle a little contracte; ventral margin more or less gaping.

DISSIMILIS.—?

Sci. testâ aurantâ et Sowerby's Thesaurus, p. 107, Dissimilis.

Species 20. (Mrs. Nolas.)

SCINTILLA MAURITIANA. *Sci. testâ elongatâ, ovali aurantâ, subtruncatâ, latere postico leviori, medio contractâ, angulo ventrali plus minusve subtruncatâ, latere antico leviori.*

THE MAURITIAN SCINTILLA. Shell elongated, length orange, moderately inflated; ventral margin widely gaping, dorsal margin rather straight, ends rather obliquely, shortly truncated.

DISSIMILIS, Edition of Lamarck's *Ann. s. Vert.*

Hab. The Mauritius.—Isl. Bourbon.

We think that the shell figured in Sowerby's Thesaurus for this species is only an elongated variety of *Scintilla aubignoi*.

Species 21. (Mrs. Nolas.)

SCINTILLA AMPLA. *Sci. testâ ovali aurantâ, leviori oblongâ, utrinque subtruncatâ, concentricè sub-*

contractâ, subobliquatâ, callosâ medio arcuato-membranis tumida, angulo ventrali latissimo leviori.

THE OPEN SCINTILLA. Shell bright orange, shortly oblong, rather truncated on each side, concentrically slightly wrinkled, subobliquatoid; valves arched in the middle; umbones tumid; ventral margin very widely gaping.

SOWERBY.

Hab. The Mauritius.

Much shorter and more truncated than *Scintilla aurantosa*, with the valves remarkably arched, and a very wide hiatus in the ventral margin.

Species 22. (Mrs. Brit.)

SCINTILLA BORNENSIS. *Sci. testâ obliqâ, concentricè subtruncatâ, fere clausâ, subglobatâ; latere antico leviori, angulorum obliquè subtruncatâ; medio subcontractâ.*

THE BORMAN SCINTILLA. Shell whitish, concentrically subtruncatoid, nearly closed, rather inflated; anterior side short, narrower, obliquely subtruncatoid; slightly contracte in the middle.

DISSIMILIS.—?

Hab. Borneo.

More inequivalve and oblique than *Scintilla aubignoi*, and scarcely if at all gaping.

Species 23. (Mrs. Brit.)

SCINTILLA RELIQUIANA. *Sci. testâ roseo-purpureo-ovata, tenuissimâ, oblongâ, clausâ, medio subcontractâ; latere antico truncatâ.*

RELIQUIAN SCINTILLA. Shell rose-purplish, very thin, oblong, closed, slightly contracte in the middle; anterior side truncated.

DISSIMILIS, Proc. Zool. Soc., 1855, p. 178.

Hab. North Australia.

February, 1874.

SCINTILLA.—PLATE III.

Species 24. (Mus. Brit.?)

SCINTILLA FLAVIDA. *Sci. testâ tenui, subquadrata, pallidissimè fulvâ, compressâ, ad marginem dorsalem utrinquè paulò aperta; altitudinè longitudinem fere æquantî.*

THE YELLOWISH SCINTILLA. Shell thin, subquadrate, very pale fulvous, compressed, a little open at the dorsal margin on both sides: height nearly equalling the length.

DESHAYES, Proc. Zool. Soc., 1855, p. 175.

Hab. Philippines.

Species 25. (Mus. Nobis.)

SCINTILLA ADAMI. *Sci. testâ pallidè fulvâ, oblongâ, clausâ, inequilaterali, moderatè inflatâ; latere antico brevi, angustò, truncatò, margine ventrali rectiusculo.*

ADAM'S SCINTILLA. Shell pale fulvous, oblong, closed, inequilateral, moderately inflated: anterior side short, narrow, truncated; ventral margin rather straight.

DESHAYES, Proc. Zool. Soc., 1855, p. 179.

Hab. Isl. Bohol, Philippines.



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SCINTILLA.—PLATE IV.

LAVARD'S SCINTILLA. Shell thin, white, semipellucid, narrow, elongated, middle a little inflated; ventral margin widely gaping; ends rather rounded.

DESHAYES. — ?

Hab. Ceylon.

This little open species is like a *Galeomma* in all but the structure of the surface.

Species 32. (Mus. Brit.)

SCINTILLA POLITA. *Sci. testâ albâ, nitenti, semipellucidâ, compressâ, concentricè rugatâ, oblongâ, utrinquè truncatâ; latere antico breviori; marginè ventrali paulò hiante.*

THE POLISHED SCINTILLA. Shell white, shining, semipellucid, compressed, concentrically wrinkled, oblong, truncated at each end; anterior side shorter; ventral margin a little gaping.

DESHAYES. — ?

Hab. Isl. Samar, Philippines.

Species 33. (Mus. Brit.)

SCINTILLA TORCLOSA. *Sci. testâ pallidissimè rosâ, minutissimè punctulatâ, compressâ, elongatâ, medio subcompressâ, concentricè obscure rugatâ, marginibus clausis.*

THE POROUS SCINTILLA. Shell very pale rose, very minutely punctured; compressed, elongated; middle rather depressed, concentrically obscurely wrinkled; margins closed.

DESHAYES, Proc. Zool. Soc., 1855, p. 180

Hab. Isl. of Bohol.

Species 34. (Mus. Brit.)

SCINTILLA OBLIQUA. *Sci. testâ obliquè oblongâ, fuscâ, clausâ, cubè inæquilaterali; latere antico brevissimo, truncato; latere postico subangulato; marginibus dorsalibus et ventralibus rectisæntis.*

THE OBLIQUE SCINTILLA. Shell obliquely oblong, brown, closed, very inequilateral; anterior side very short, truncated; posterior side rather inflated, dorsal and ventral margins rather straight.

SOWERBY, Thesaurus Conchyliorum, Scintilla, species 32, fig. 35.

Hab. Ecuador.

Species 35. (Mus. — ? Copied.)

SCINTILLA DECLIVIS. *Sci. testâ semipellucidâ, parvâ, pallidè fulvâ, intus fuscâ, clausâ; cubè inæquilaterali, latere antico brevi; marginè dorsali utrinquè declivi.*

THE SLOPED SCINTILLA. Shell semipellucid, small, palliduous, brown within, closed, very inequilateral; anterior side short; dorsal margin sloped at each side.

SOWERBY, Thesaurus Conchyliorum, Scintilla, sp. 31, fig. 30.

Hab. — ?

This little species is very oblique, and being half transparent, shows through to the outer surface the slight purplish colour of the inside.



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SCINTILLA.—PLATE V.

Species 42. (Fig. a, b, Mus. Brit.)

SCINTILLA TURGIDA. *Sci. testâ, tenui, albâ, inflatâ, latere antico brevi, angustiori, truncato; latere postico obliquè inflato, rotundo, margine dorsali levato; marginè postico-dorsali rite aperto, marginè ventrali medio inflato, antice contracto.*

THE TURGID SCINTILLA. Shell thin, white, inflated: anterior side short, narrower, truncated, posterior side obliquely inflated, rounded, dorsal margin elevated; posterior dorsal margin very little open; ventral margin inflated in the middle, contracted in front.

DESHAYES, Proc. Zool. Soc., 1855, p. 175.

Hab. Isl. Samar, Philippines.

Species 43. (Fig. a, b, Mus. Brit.)

SCINTILLA SCINTILLANS. *Sci. testâ nitenti, medio sub-convexe, subpellucidâ, reversis marginem fulvidâ, apicâ, clausâ, oblongo-subquadratâ; latere antico brevi, marginibus dorsalibus declivibus*

THE BRIGHT SCINTILLA. Shell shining, subpellucid in the middle, fulvous, opaque towards the margin, closed, subquadrate; anterior side shorter; dorsal margins sloped.

DESHAYES, Proc. Zool. Soc., 1855, p. 175.

Hab. Isl. Bohol, Philippines.

Species 44. (Mus. Brit.)

SCINTILLA OVALINA. *Sci. testâ, oblongo-subquadrati, tumidissimâ, nitenti, clausâ, partim semipellucidâ, latet; marginibus lateralibus declivibus, marginè ventrali rectiusculo.*

THE OVAL SCINTILLA. Shell oblong subquadrate, rather tumid, shining, closed, partly semipellucid, yellowish; lateral margins sloped, ventral margin rather straight.

DESHAYES, Proc. Zool. Soc., 1855, p. 171.

Hab. Isl. Samar, Philippines.

In structure this shell and the next are opaque and pellucid in bands.



26. A. B.



15. A.



47. A. B.



16.



19.



50.



51.



52. A. B.



53.



54.

Species 50. (Mus. Brit.)

SCINTILLA SUBRECTANGULA. *Sci. testâ parvâ, fulvâ, pellucidâ, subovato-oblongâ, valdè compressâ, marginibus clausis utrinque hinc.*

THE SUBRECTANGULAR SCINTILLA. Shell small, fulvous, pellucid, subovately round, very compressed; ventral margin gaping at both ends.

DESHAYES. Proc. Zool. Soc., 1855, p. 177.

Hab. Isl. Mindanao, Philippines.

The smallest, and one of the most hyaline of all the species.

Species 52. (Fig. a, b, Mus. Brit.)

SCINTILLA PELLUCIDA. *Sci. testâ parvâ, hinc, suboblongâ, compressâ, pellucidâ, excavatâ et undulatâ concentricâ terminâ apertâ; laterè antèo hinc excavato, abtruncato; laterè postèo obliquè paulò prolato.*

THE PELLUCID SCINTILLA. Shell small, milk-white, rather round, compressed, pellucid, concentrically undulately wrinkled; ends open; anterior side rather short, rather truncated; posterior side a little obliquely produced.

DESHAYES. Proc. Zool. Soc., 1855, p. 177.

Hab. Isl. Bohol, Philippines.

A smaller and more rounded shell than *Scintilla ovata*, with more large and conspicuous wrinkles.

Species 53. (Mus. Brit.)

SCINTILLA VITREÆ. *Sci. testâ ovato-subquadratâ, pallidè fulvâ, tenuissimâ, compressâ, fasciâ subopacâ, fere clausâ, terminâ obliquè truncatâ; marginè dorsali recto, umbonibus acutis.*

THE GLASS SCINTILLA. Shell ovately-subquadrate, pale fulvous, very thin, compressed, with rather opaque bands; almost closed; ends obliquely truncated; dorsal margin straight, umbones sharp.

DESHAYES. Proc. Zool. Soc., 1855, p. 177.

Hab. Isl. Bureau, Philippines.

Species 54. (Mus. Nobis.)

SCINTILLA OPACA. *Sci. testâ subovatâ, nitè et, ætate, opacâ, opacâ, clausâ; laterè antèo subtruncato; marginè ventrali rectiusculo.*

THE OPAQUE SCINTILLA. Shell subovate, shining, straw-coloured, opaque, closed; anterior side rather truncated; ventral margin rather straight.

SOVERBY.

Hab. ———

Although brilliantly polished, this little shell is opaque.

SCIENTIFLÆ.

	F. n.	Species		F. n.	Species
<i>Acrida, Deshayes</i>	III	25	<i>ovifera, Deshayes</i>	V	44
<i>acridula, Deshayes</i>	III	19	<i>Oxycera, Deshayes</i>	II	16
<i>amorosa, Deshayes</i>	V	37	<i>pallescens, Deshayes</i>	II	16
<i>aperta, Scop.</i>	III	21	<i>pallida, Deshayes</i>	VI	52
<i>aurantiana, Deshayes</i>	III	29	<i>Philippensis, Deshayes</i>	I	5
<i>Bornensis, Deshayes</i>	III	22	<i>psima, Scopely</i>	VI	47
<i>carolinæ, Deshayes</i>	I	6	<i>præta, Deshayes</i>	IV	32
<i>hyemalis, Deshayes</i>	VI	51	<i>psyllon, Deshayes</i>	IV	33
<i>rossi, Deshayes</i>	VI	49	<i>pubes, Deshayes</i>	II	17
<i>Cucuriza, Deshayes</i>	I	3	<i>pubescens, Scopely</i>	VI	46
<i>Cuvieri, Deshayes</i>	II	15	<i>Reticulata, Deshayes</i>	III	23
<i>delecta, Scopely</i>	IV	35	<i>rossi, Deshayes</i>	I	4
<i>fulva, Deshayes</i>	IV	29	<i>rossi, Deshayes</i>	II	11
<i>flavida, Deshayes</i>	III	24	<i>rossi, Scopely</i>	VI	46
<i>Furciosa, Deshayes</i>	II	18	<i>sentellina, Deshayes</i>	V	43
<i>Hansoni, Scopely</i>	II	12	<i>sevitana, Scopely</i>	II	9
<i>hyalina, Deshayes</i>	IV	39	<i>solidula, Deshayes</i>	VI	45
<i>hydrata, Deshayes</i>	V	38	<i>sphæridula, Deshayes</i>	IV	26
<i>hydropinna, Deshayes</i>	VI	18	<i>spinosa, Scopely</i>	VI	50
<i>incerta, Deshayes</i>	IV	27	<i>Strangæ, Deshayes</i>	II	13
<i>Jukouii, Deshayes</i>	I	8	<i>strigata, Deshayes</i>	V	40
<i>laeta, Scopely</i>	V	36	<i>strigosa, Deshayes</i>	I	1
<i>Layardi, Deshayes</i>	IV	31	<i>tenuis, Deshayes</i>	I	7
<i>membranacea, Scopely</i>	V	39	<i>Tine rosæ, Deshayes</i>	II	14
<i>lilipina, Scopely</i>	IV	31	<i>turgescens, Deshayes</i>	I	2
<i>oblonga, Scopely</i>	IV	28	<i>turgida, Deshayes</i>	V	12
<i>opaca, Scopely</i>	VI	54	<i>virena, Deshayes</i>	VI	53
<i>opalina, Deshayes</i>	V	41			

MONOGRAPH
OF THE GENUS
STOMATELLA.

By A. H. S. BEAN, Albany, N. Y.



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3

STOMATELLA.

PLATE I.

Genus STOMATELLA, Lamarck.

Testa plus minusve auriformi, spirâ parâ, utriusque fractâ magna, spirâliâ costatis; apertura magna, obliquè truncata, mucosa, iridescens.

Operculum suborbiculari, tenui, corneo, multispinulâ.

Shell more or less auriform, with small spire and large body whorl, spirally ribbed, aperture large, obliquely elongated, partly iridescent.

Operculum orbicular, thin, horny, many whorled.

It is a question of convenience whether this genus should or should not include the shells separated under the name of STOMATA. The differences in the shells of the two genera are not great, consisting mainly in the present genus not being wrinkled at the suture, like the *Stomata*, and not having prominent spiral tubercular keels. The presence of an operculum in *Stomatella* and its absence in *Stomata*, would, if it could be established, be a very important distinction. The typical species is from Torres Straits, and two or three are Australian, but a very large proportion of the remaining species find their habitats among the Philippine.

Species 1. (Mus. Brit.)

STOMATELLA TULGURANS. *Sto. testâ sphaerobulari, subdepressa, fulvâ, limâ obliquâ, fasciâtes costibus ornatâ, spirâ acuminatâ; infraorbibus tenuiter latis; utriusque fractâ subparâ.*

THE LIGHTNING STOMATELLA. Shell suborbicular, subdepressed, fulvous, ornamented with oblique brownish-grey lines; spire acuminated; whorls finely ridged; last whorl partly perforated.

A. ADAMS, Proc. Zool. Soc., 1850.

Hab. Isl. Negroes, Philippines.

Species 2. (Fig. a, b, Mus. Brit.)

STOMATELLA SAN-GUISNA. *Sto. testâ depressâ, ovatâ, crassâ, rubrâ; costis multijugis distantibus*

ornatâ; spirâ subacuminatâ, infraorbibus rotundis, apertura latâ. labiâ interno lato, albo, obliquo, rubrâ ornato.

THE BLOOD-COLOURED STOMATELLA. Shell depressed, ovate, thick, red; ornamented with distant beaded ribs; spire subacuminated, whorls rounded; aperture broad; inner lip broad, white, oblique, much arched.

A. ADAMS, Proc. Zool. Soc., 1850.

Hab. Isl. Ticao, Philippines.

There is no difficulty in recognising this neat little coral-like species.

Species 3. (Fig. a, b, Mus. Nolog.)

STOMATELLA PAPYRACEA. *Sto. testâ levigatâ, subobovâ, tenui, corneâ, fulvâ et rubrâ, fusco utriusque muculatâ, spirâliâ costis levigatis, fusco utriusque band pinnulâ latis; spirâ acuminatâ, apertura ovatâ, columellâ albâ, planulâ, parâ obliquâ.*

THE PAPERY COUS STOMATELLA. Shell smooth, subglobose, thin, ash-coloured, brown or red, spotted with brown or black; spirally ridged, not prominently, with smooth, brown-spotted ribs; spire acuminated; aperture ovate; columella white, flattened, very oblique.

CHENUZ, Conchylic Cabinet, Pl. 182, f. 1817, 1818. *Stomatella tunida*, Gould.

Hab. Australia.

Differing from all the rest in the smoothness and slightness of its structure.

Species 4. (Fig. a, b, Mus. Brit.)

STOMATELLA HALIOTIDEA. *Sto. testâ depressâ, obliquâ subauriformi, tenui, fusco, rubro-alboque canaliculâ; spirâ acuminatâ, infraorbibus planulâ, spirâliâ costatis; apertura latâ.*

THE HALIOTIS STOMATELLA. Shell depressed, obliquely rather auriform, thin, variously painted with

STOMATELLA —PLATE 1

brown, red, and white; spire acuminated, whorls rather flat, spirally ribbed; aperture wide.

SOWERBY. Genera of Shells

Hab. Philippines

Species 5 (Fig. a, b, Mus. Brit.)

STOMATELLA MACULETA. *Sto. testa depressa, obliqua ovata, spiraliter costis acuminatimibus levata; fusco vel rubro variegata; apice subincrato, anfractibus convexis, ultimo lato; apertura obliqua ovata.*

THE SPOTTED STOMATELLA. Shell depressed, obliquely oval, spirally ridged with beaded ribs; variegated with brown or red; apex rather elevated, whorls convex, last wide; aperture obliquely ovate.

(Cuv., Voy. de l'Astrolabe, t. iv, p. 315.

Hab. Isl. Vanikoro

Species 6. (Mus. Brit.)

STOMATELLA JAPONICA. *Sto. testâ suborbiculari, subdepressa, fulvo-rubescenti, spiraliter costis laevibus, compactis, nodulosis levata; spira elevata; ultimo anfractu inflato; apertura suborbiculari.*

THE JAPAN STOMATELLA. Shell suborbicular, subdepressed, reddish-brown, spirally ridged with smooth, close, nodulous ribs; spire elevated; last whorl inflated; aperture suborbicular

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Japan

This species bears some resemblance to *Stomatella Madagascariensis* in form.



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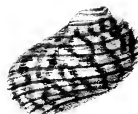
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STOMATELLA.

PLATE II.

Species 7. (Mus. Brit.)

STOMATELLA MONILIFERA. *Sto. testâ suborbiculari, pallide fulvâ, fusco-rubescenti punctata, costellis radiatis, mandibulis levatâ, interstitiis striatis, apertura obliquâ, subcirculari.*

THE LEADED STOMATELLA. Shell suborbicular, pale fulvous, spotted with reddish-brown, ridged with strong, beaded ribs; interstices striated; aperture oblique, subcircular.

A. ADAMS, Proc. Zool. Soc., 1850.

Hab. —?

The locality of this pretty little shell has not been ascertained.

Species 8. (Fig. a, Mus. Brit.)

STOMATELLA CANDIDA. *Sto. testâ albâ, depressâ, spirâliter acuti carinata; carinis parvis, confectis, numerosis, subsecutis, angulatis, elevatis, interstitiis concentricè laniissimè striatis; spirâ subpressâ; anfractibus rotundis; apertura obliquâ, suborbiculari.*

THE WHITE STOMATELLA. Shell white, depressed, spirally sharply keeled; keels small, close, numerous, a little crenated, angular, raised, interstices concentrically very finely striated; spire rather depressed, with rounded whorls; aperture oblique, suborbicular.

A. ADAMS, Proc. Zool. Soc., 1850.

Hab. Korean Archipelago.

This species was taken by Mr. Arthur Adams on coral reefs.

Species 9. (Mus. Brit.)

STOMATELLA SPECIOSA. *Sto. testâ trochiformi, albâ, rubro maculata, spirâliter carinata, concentricè striatâ; carinis tribus principalibus obtusis, prominentibus, interstitialibus minutis; spirâ conoïd, anfractibus tricarinatis.*

THE SPECIOUS STOMATELLA. Shell trochiform, white, spotted with red, spirally keeled, concentrically

striated; three principal keels obtuse, prominent, interstitial ones minute; spire conical, whorls tricarinate.

A. ADAMS, Proc. Zool. Soc., 1850.

Hab. Grimwood's Island.

The arrangement of the red spots between the keels, gives great beauty to this shell.

Species 10. (Fig. a, b, Mus. Nobis.)

STOMATELLA IMBRICATA. *Sto. testâ depressâ-orbiculari, scabris, griseâ, fusco-punctatâ; costis transversis numerosis, confectis, imbricatâ-squamosis levatâ; spirâ parvâ, anfractibus duobus, convexis; apertura maximâ.*

THE IMBRICATED STOMATELLA. Shell depressed-orbicular, scabrous, grey, brown-spotted; ridged with numerous close ribs, with imbricated scales; spire small, whorls two, convex; aperture very large.

LAMARCK, Encyclopédie Méthodique.

Hab. Torres Straits.

Species 11. (Fig. a, b, Mus. Brit.)

STOMATELLA SEMITERA. *Sto. testâ obliquè oblongo-ovata, testâ scabâ, spirâliter costis scabrisculis levatâ, griseo-rubescenti, maculis strigisque variegatâ, concentricè minutè striatâ; apertura maximâ, obliquè oblongâ.*

THE GROOVED STOMATELLA. Shell obliquely oblong-ovate, rather thin, spirally ridged with rather scabrous ribs, reddish-grey, varied with spots and stripes, concentrically minutely striated; aperture very large, obliquely oblong.

LAMARCK, Encyclopédie Méthodique.

Hab. Isl. Ticao, Isl. Samar, Philippines.

Taken at low water from the coral reefs fringing the Islands.

April, 1874.

STOMATELLA.—PLATE II.

Species 12. (Fig. *a, b, c*, Mus. Brit.)

STOMATELLA NOTATA. *Sto. testō suborbiculari-depressā, pallidē rosei, maculis purpureis distinctis, seriatim ornata; spirāliter costatā, concentricē perobliquē striatā; spiri productā, acuminatā; aperturā suborbiculari.*

THE MARKED STOMATELLA Shell suborbicular, depressed, pale pink, ornamented with distinct purple

spots in rows: spirally ribbed, concentrically very obliquely striated; spire produced, acuminate: aperture suborbicular.

A. ADAMS (Stomatia). Proc. Zool. Soc., 1850.

Hab. Philippines.

It may be doubtful whether the varieties (figs. *b* and *c*) really belong to this species.



14^a



12^a



13



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15^a



16^a



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STOMATELLA.

PLATE III.

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

STOMATELLA CANCELLATA. *Sto. testâ suborbiculari, convexâ, umbilicâti, subincircâ, fasciis fumosogriseis, irregularibus, undatâ, concentricè pictâ; costellis spirâlibus obtusis, inæqualibus, striisque concentricis cancellatâ; spirâ prominenti, apice acuto; apertura subrotundâ, margine columellari paulo reflexo, medio rectiusculo; umbilico costâ spirâli marginato.*

THE CANCELLED STOMATELLA. Shell suborbicular, convex, undilicated, rather ashy, concentrically painted with irregular, undulated, smoky brown bands; cancellated with spiral, obtuse, unequal ribs and concentric striae; spire prominent, apex sharp; aperture rather round, columellar margin a little reflected, rather straight in the middle; umbilicus bordered with a spiral rib.

KRAUSS. Sudafrikan Mollusken.

Hab. Table Bay, Cape of Good Hope.

Species 14. (Fig. a, b, Mus. Brit.)

STOMATELLA ARABICA. *Sto. testâ suborbiculari, umbilicatâ, acuminatâ, albâ, flammulis vel maculis rubris pictâ; spirâ productâ; anfractibus costellis paucis rotatis, striisque interstrialibus liris; regione umbilicâti impresso; labio interno reflexo, tenui.*

THE ARABIAN STOMATELLA. Shell suborbicular, umbilicated, acuminated, white, painted with red flames or spots; spire produced; whorls ridged with few strong ribs, and interstitial striae; umbilical area impressed; inner lip reflected, thin.

A. ADAMS. Sowerby's Thesaurus Conchyliorum, Stom. Sp. 13, figs. 27, 28.

Hab. Red Sea.

Species 15. (Fig. a, b, Mus. Brit.)

STOMATELLA SPLENDIDULA. *Sto. testâ imperforatâ, subdepressâ, suborbiculari, tenui, rubrâ, ad suturam*

et infra medium flammulis rubris subconcentricis pictâ; liris asperulatis inæqualibus et striis spirâlibus ornatâ; apertura transversè oblongâ, haliotisoidâ.

THE SPLENDID STOMATELLA. Shell imperforate, rather depressed, suborbicular, thin, red, painted at the suture and below the middle with red subconcentric flames; ornamented with roughened, unequal spiral ribs and striae; aperture transversely oblong, haliotis-shaped.

A. ADAMS. Sowerby's Thesaurus Conchyliorum, Stom. Sp. 18 a, figs. 15, 16.

Hab. —?

The locality of this beautiful species is unknown.

Species 16. (Mus. Brit.)

STOMATELLA BACONI. *Sto. testâ suborbiculari, solidâ, imperforatâ, spirâliter striatâ, pallidè fulvâ, fusco fasciatim variegatâ; spirâ acuminatâ, anfractibus rotatis, apertura obliquè ovatâ.*

BACON'S STOMATELLA. Shell suborbicular, solid, imperforate, spirally striated, pale fulvous, varied with brown in bands; spire acuminated, whorls rounded, aperture obliquely ovate.

A. ADAMS. Sowerby's Thesaurus Conchyliorum, Stom. Sp. 19, figs. 25, 26.

Hab. Swan River.

Species 17. (Mus. Brit.)

STOMATELLA MARGARETANA. *Sto. testâ suborbiculari, rubrâ, costis subnodosis, rotatis, inæqualibus liris, spirâ levatâ, acuminatâ; anfractibus rotatis, distinctis; apertura subrotundâ; umbilico callo obtuso.*

THE MARGARETA STOMATELLA. Shell suborbicular, red, ridged with rather nodose, rounded, unequal ribs, spire elevated, acuminated; whorls rounded.

April, 1871.

STOMATELLA.—PLATE III.

distinct; aperture nearly round; umbilicus covered by a callus.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Australia.

The name refers to a resemblance in form between this little shell and those of the genus *Margarita*.

Species 18. (Mus. Brit.)

STOMATELLA TIGRINA. *Sto. testâ subtrochiformi, perforatâ, albidd, lineis rubris, obliquè subconcentricis strigatâ; spirâ conicâ, anfractibus angulatis, bicarinatis, inter carinas spirâliter striatis; aperturâ suborbiculari, labio interno reflexo, calloso; umbilico distincto, partim obtecto.*

THE LITTLE TIGER STOMATELLA. Shell somewhat trochiform, perforated, whitish, striped with red, obliquely concentric lines; spire conical, whorls

angular, bicarinated, spirally striated between the keels; aperture suborbicular, inner lip reflected, callous; umbilicus distinct, partly covered.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. — ?

Species 19. (Mus. Brit.)

STOMATELLA PALLIDA. *Sto. testâ suborbiculari, albidd, lineis undulatis pallidè fulvis ornata; spirâliter costellis inæqualibus liratis; spirâ elevatâ, acuminatâ, anfractibus angulatis; labio interno calloso.*

THE PALE STOMATELLA. Shell suborbicular, whitish, ornamented with pale fulvous undulating lines; spirally ridged with unequal ribs; spire elevated, acuminated, whorls angular; inner lip callous.

A. ADAMS (Stomatia). Proc. Zool. Soc., 1850.

Hab. Lord Hood's Island.

A much more elevated shell than *Stomatella tigrina*.



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STOMATELLA.

PLATE IV.

FIG. 8 b. A variety of *Stomatella cradula*, in which some faint flames of colour are visible.

Species 20. (Mus. Brit.)

STOMATELLA SUTURA. *Sto. testâ parvâ, depressâ, lobiforâ, pallidissimâ, rosâ, lobis punctatâ, costellis numerosis, levib; apertura magna, labio interno albo, acuto, obliquè arcuato.*

THE IRM STOMATELLA. Shell small, depressed, lobate-shaped, very pale rose, spotted with red; ridged with numerous ribs; aperture large, inner lip white, sharp, obliquely arched.

H. ADAMS, Proc. Zool. Soc., 1872.

Hab. Red Sea.

Species 21. (Mus. Brit.)

STOMATELLA BIPORATA. *Sto. testâ trochiformi, lobâ, bicarinatâ; spirâ elevatâ, angustius angulatâ; apertura subquadratâ; labio externo biangulato, umbilico callo obtectâ.*

THE TWO-RIBBED STOMATELLA. Shell trochiform, red, two-keeled; spire elevated, whorls angular; aperture subquadrate; outer lip biangular; umbilicus closed by a callus.

A. ADAMS, Proc. Zool. Soc., 1850.

Hab. Australia.

Although, as to the keels, this shell would appear rather to belong to the genus *Stomatia*, it belongs to the present genus on account of the crenulated edge of the whorls at the suture.

Species 22. (Mus. Brit.)

STOMATELLA ARTICULATA. *Sto. testâ suborbiculatâ, depressâ convexâ, imperforatâ, teratinsculâ, grisâ; costellis spirâlibus nigro articulatis, interstitiis con-*

coloribus luteo chloratis ornatis; spirâ prominêti, angustibus convexis, ultimo magno, obliquo.

THE ARTICULATED STOMATELLA. Shell suborbicular, depressed, convex, imperforate, rather thin, grey; spiral ribs articulated with black; interstices concentrically ornamented with raised ridges; spire prominent; whorls convex, the last large, oblique.

A. ADAMS, Proc. Zool. Soc., 1850.

Hab. Australia.

Differing slightly in form from *Stomatella imbricata*, but much more in the sculpture. The interstices of the articulated ribs are in a manner cancelled by very fine ridges in the other direction.

Species 23. (Fig. a, b, Mus. Brit.)

STOMATELLA ORBICULATA. *Sto. testâ suborbiculatâ, sub depressâ, subcirculari, fusco variegatâ, costellis rotundis inaequalibus confertis liratâ; spirâ prominêti, angustibus rotundis; apertura subcirculari.*

THE ORBICULAR STOMATELLA. Shell nearly round, rather depressed, greenish, variegated with brown; ridged with rounded unequal ribs; spire prominent, whorls rounded; aperture subcircular.

A. ADAMS, Proc. Zool. Soc., 1850.

Hab. Mozambique.

Collected by the Rev. W. N. Hemmh, under stones at low water.

Species 24. (Mus. Brit.)

STOMATELLA MALUKANA. *Sto. testâ suborbiculatâ, inflatâ, imperforatâ, concentricè striatâ, costellis spirâlibus subrotundis, inaequalibus liratâ, fuscâ-fusci, strigis irregulâribus variegatâ; spirâ prominêti; apertura subrotatâ.*

THE MALUKAS STOMATELLA. Shell suborbicular, inflated, imperforate, concentrically striated,

ridged with spiral, roundish, unequal ribs; smoky brown, varied with irregular stripes; spire rather prominent; aperture subovate.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Moluccas.

Species 25. (Fig. *a, b*, Mus. Cuming.)

STOMATELLA BICARINATA. *Sto. testâ trochiformi, perforatâ, tenuisculâ, pallidè fulvâ, striâs irregu- laribus, subconcentricis, viridâs pictâ; spirâ promi- nentâ, ultimo anfractu distanter bicarinatâ; aperturâ subquadratâ; labio interno tenui; umbilico patulo.*

THE TWO-KEELED STOMATELLA. Shell trochiform, perforated, rather thin, pale fulvous, painted with irregular partly concentric green stripes; spire a little prominent; last whorl distantly two-keeled; aperture rather square; inner lip thin; umbilicus small.

A. ADAMS. Sowerby's Thesaurus Conchyliorum, StomateLLa, Sp. 21, f. 39, 40.

Hab. Moreton Bay, Australia.

Resembling the *Stomatia*, yet differing from them in the same way as *Stomatella biporata*.

Species 26. (Fig. *a, b*, Mus. Brit.)

STOMATELLA COCCINEA. *Sto. testâ parvâ, obliquè sub- ovatâ, lorigatâ, rubrâ, maculis albis seriâtim in medio anfractus ultimi dispositis ornatâ; anfractu ultimo tenuiter sulcato, subangulato; aperturâ obliquè lat. rotiter producto, labio interno albo, lato, semiperforato.*

THE COCHINEAL STOMATELLA. Shell small, obliquely subovate, smooth, red, ornamented with a row of white spots in the middle of the last whorl; last whorl finely sulcated, rather angular; aperture obliquely laterally produced; inner lip white, broad, half perforated.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. St. John's.

The body-whorl is obtusely angulated by two obscure ribs.



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27^a



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27^b



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31



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32^a



32^b



31

STOMATELLA.

PLATE V.

Species 27. (Fig. a, b, Mus. Brit.)

STOMATELLA ELEGANS. *Sto. testis obliqui elongati, auriferum, subconcolori, purpureo-fuscescanti, carinipati; costis spirulibus, tenuibus, purpureo articulatis ornatis; apertura elongata, labio interno perobliquo, valde arcuato; spirâ parvâ, anfractibus rotundis.*

THE ELONGATE STOMATELLA. Shell obliquely elongated, ear-shaped, rather shiny, variegated with brownish-purple; ornamented with spiral thin ribs articulated with purple; aperture elongated, inner lip very oblique, much arched; spire small, whorls rounded.

GRAY. —? MS. in Brit. Mus.

Hab. —?

Species 28. (Mus. Brit.)

STOMATELLA FLAVA. *Sto. testis trochiformi, subangulati, albi, maculis quadratis rubris picti, costis duobus principatibus et alius minoribus rubris articulatis ornatis; spirâ elevatâ, anfractibus cœcatis, biangulatis, ad sativum rubro-articulatis.*

THE ELEVATED STOMATELLA. Shell trochiform, rather angular, white, painted with squarish red spots, ornamented with two principal, and other smaller red articulated ribs; spire elevated; whorls exserted, biangular, articulated at the suture with red.

H. ADAMS. Proc. Zool. Soc., 1863, p. 433.

Hab. —?

All the ribs of various sizes are neatly articulated with red spots.

Species 29. (Mus. Brit.)

STOMATELLA STILICIA. *Sto. testis subobovato, depressâ, levigatâ, subtrilobâ, carinipati, costis fusco-articulatis; spirâ elatâ, angustâ, acuminatâ; ultimo anfractu lato, subamblyvato, horizontali, medio et suprâ biangulato et costato, apertura ovati, depressâ.*

THE OBOVAL STOMATELLA. Shell suborbicular, depressed, smooth, variegated with greenish; ribs articulated with brown; spire elevated, narrow, acuminate; last whorl broad, slightly umbilicated, horizontal, biangular and ribbed in the middle and above; aperture ovate, depressed.

A. ADAMS. Proc. Zool. Soc., 1863, p. 433.

Hab. —?

Species 30. (Mus. Brit.)

STOMATELLA BELLETA. *Sto. testis trochiformi, subovâ, conulis coloris saccharini picti; spirâ prominatâ, anfractibus subrotundis; ultimo anfractu biangulato, ad angulos costis validis cincto; interstitiis striatis.*

THE TROCHIFORM STOMATELLA. Shell trochiform, rather rosy, painted with red spots in rows; spire prominent, whorls roundish; last whorl biangular, belted with strong ribs at the angles; interstices striated.

H. ADAMS. —?

Hab. —?

Resembling *Stomatella modesta* in the markings, but more trochiform.

Species 31. (Mus. Brit.)

STOMATELLA CLATERATA. *Sto. testis subglobosâ, vel trochiformi, altâ, albâ, fusco-purpureo variegatâ, costis spirulibus fusco-maculatis, scabris ornatis; interstitiis profundè concentricè liratis; ultimo anfractu globoso, propè columellam costis duobus majordans instructo; columellâ latè reflectâ.*

THE LIRICED STOMATELLA. Shell rather globose, or trochiform, high, whitish, varied with purplish-brown, ornamented with brown spotted scabrous spiral ribs; interstices deeply concentrically ridged; last whorl globose with two larger ribs fixed near the columella; columella broadly reflected.

A. ADAMS. —?

Hab. —?

April, 1874.

STOMATELLA.—PLATE V.

Species 32. (Mus. Brit.)

STOMATELLA CUMINGII. *Sto. testâ auriformi, obliquè oblongo-ovati, lutescenti, fusco-maculati, spiràliter costis elevatis mouldiformibus valèdis asperatâ; aperturâ obliquè elongatâ, labio externo crenato; lobio interno valèdè arcuato.*

CUMING'S STOMATELLA. Shell auriform, obliquely oblong, ovate, yellowish, spotted with brown, spirally roughened with elevated strong beaded ribs; aperture obliquely elongated, outer lip crenated, inner lip strongly arched.

A. ADAMS. Sowerby's Thesaurus Conchyliorum, Plate 175, fig. 38.

Hab. —?

The locality of this handsome species is unknown.

Species 33. (Fig. a, b, Mus. Brit.)

STOMATELLA CALLIOSTOMA. *Sto. testâ globoso-subdepressâ, tenui, rufescenti, fusco variegatâ, costis tenuibus, inequalibus, spiràliter liratâ; aperturâ subovata, rubrâ, calluicellâ albâ, valèdè obliquâ.*

THE RED-MOUTHED STOMATELLA. Shell globose-subdepressed, thin, reddish, variegated with brown, spirally ridged with thin, unequal ribs; aperture rather oval, red, columella white, very oblique.

A. ADAMS. Sowerby's Thesaurus Conchyliorum, Stomatella, Sp. 26, figs. 41, 42.

Hab. Ceylon.

Species 34. (Mus. Brit.)

STOMATELLA MODESTA. *Sto. testâ parvâ, ovata, depressâ, pallidè subrosâ, rubro-maculata, obscurè viridè maculata; spiràliter costis parvis, rubro articulatis liratâ.*

THE MODEST STOMATELLA. Shell small, ovate depressed, pale rosy, spotted with red, clouded with obscure green; spirally ridged with small red articulated ribs.

H. ADAMS. —?

Hab. —?

An interesting, prettily spotted species.

S T O M A T E L L A.

	Plate.	Species.		Plate.	Species.
<i>Arabica</i> , A. Adams	III	14		I.	6
<i>articulata</i> , A. Adams	IV.	22		I.	5
<i>Baconi</i> , A. Adams	III.	16		IV.	24
<i>bicarinata</i> , A. Adams	IV	25		III.	17
<i>biporcata</i> , A. Adams	IV	21			
<i>callicostona</i> , A. Adams	V	33		V.	31
<i>cancellata</i> , <i>Kessels</i>	III	13		II.	7
<i>caudata</i> , A. Adams	II.	8		II.	12
<i>clathrata</i> , A. Adams	V.	31		IV.	23
<i>coarctata</i> , A. Adams	IV.	26		III.	19
<i>Cumingii</i> , A. Adams	V	32		I.	3
<i>desiderata</i> , Gould. Unidentified.				I	2
<i>dilecta</i> , H. Adams	V	30		IV.	20
<i>elata</i> , H. Adams	V.	28		V.	29
<i>elegans</i> , <i>Gistay</i>	V.	27		II	9
<i>fulgurans</i> , A. Adams	I	1		III.	15
<i>hadrotoides</i> , <i>Sowarck</i>	I.	1		II.	11
<i>imbricata</i> , <i>Lamarck</i>	II.	10		III.	18
<i>inbata</i> , C. B. Adams. Unidentified.				I.	3
<i>irrasata</i> , Dufó. Unidentified.					
				I.	6
<i>Japonica</i> , A. Adams				I.	5
<i>maculata</i> , <i>Quoy</i>				IV.	24
<i>Malukana</i> , A. Adams				III.	17
<i>Margaritana</i> , A. Adams					
<i>minuta</i> , Dufó. Unidentified.				V.	31
<i>modesta</i> , H. Adams				II.	7
<i>nonifera</i> , A. Adams				II.	12
<i>notata</i> , A. Adams				IV.	23
<i>orbiculata</i> , A. Adams				III.	19
<i>pallida</i> , A. Adams				I.	3
<i>papyracea</i> , <i>Chamnit</i>				I	2
<i>sanguinea</i> , A. Adams				IV.	20
<i>seriata</i> , H. Adams				V.	29
<i>solata</i> , A. Adams				II	9
<i>speciosa</i> , A. Adams				III.	15
<i>splendibilis</i> , A. Adams				II.	11
<i>subifera</i> , <i>Lamarck</i>				III.	18
<i>tigrina</i> , A. Adams				I.	3
<i>truncata</i> , Gould					

MONOGRAPH
OF THE GENUS
STOMATIA.

Fraud, but a work divine,
With delicate spine and whorl — *Travellers*



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STOMATIA.

PLATE I.

Genus STOMATIA, *Hellbing*.

Test. bacheloidea, vel subbacheliformis, medio anfractus ultimi spiritaliter bicarinata; carinis tuberculatis. Spica producta, anfractibus ad suturam rugatoplicatis. Operculum nullum.

Shell bacheloïd-shaped, or trochiform, spirally keeled in the middle of the last whorl; keels tuberculated. Spire produced, whorls wrinkled in plaits at the suture. Operculum none.

The distinction between this genus and *Stomatella* is, that the shells of *Stomatia* have two more or less distinct tuberculated keels in the middle of the whorls and are crenulated at the suture. The habitus are as in *Stomatella*, the majority being Philippine. The type, *Stomatia phymotis*, is a Red Sea shell, and its nearest ally, *S. australis*, affects the locality which its name implies, the sides being found in the Philippines.

The genus *Microris*, consisting of but a single species, is hardly worth separating, the distinction being the singular one of the inner margin of the aperture being continued spirally and visible to the apex.

Species 1. (Fig. a, b, c, Mus. Brit., Nolis, &c.)

STOMATIA AUSTRALIS. *Sto. testâ obliquâ, arenâ, auro-subcitrilli, vel pallidâ purpureo-rubescenti, vel variegatâ, costellis acutis noduliferis levibus; spirâ parvâ, elevatâ, anfractibus duobus, parvis, bicarinatis; ultimo anfracte magno, ad suturam calidi plicato, infra plicam elevato, tum moliturâ gibboso, deinde declivi, medio bicarinato, carinis substantibus, subequalibus, acutis, nodulosis, infra carinas rugosis.*

THE AUSTRALIAN STOMATIA. Shell oblique, narrow, greenish gold, or pale purplish-red, or variegated, ridged with little noduliferous ribs; spire small, elevated, whorls two, small, two-keeled; last whorl large, strongly plaited at the suture, ex-

cavated below the plaits, then moderately gibbous, thence sloped, bicarinate in the middle. Keels rather distant, nearly equal, sharply nodulous; wrinkled below the keel.

A. ADAMS, Proc. Zool. Soc., 1850.

Hab. Australia. Philippines.

Differing from *Stomatia phymotis* in the narrower form, sharp tubercles, and equal central keels. In this species we include all the shells figured as varieties of *St. phymotis* in the *Thesaurus*. But fig. 51 (*Thes.*) represents a very abnormal form.

Species 2. (Fig. a, b, Mus. Brit. and Nolis.)

STOMATIA PHYMOTIS. *Sto. testâ valde obliquâ, crassâ, rugosâ, rubro variegatâ; ad suturam plicato-rugatâ, tum tumidâ, tuberculatâ, medio carinis duobus obtusis, tuberculatis ornato; infra tuberculatim costatâ; aperturâ obliquâ subquadratâ; apice elevato, exerto, acuto.*

THE TUBERCLED STOMATIA. Shell very oblique, thick, rugose, variegated with red, plaited in wrinkles at the suture, then tumid, tuberculated, ornamented in the middle with two obtuse, tuberculated keels, with tuberculated ribs below; aperture obliquely subquadrate; apex elevated, exerted, sharp.

HELLBING.

Habit. Imperforata, Chemnitz.

Hab. Red Sea. Gulf of Suez.

Species 3. (Fig. a, b, Mus. Nolis.)

STOMATIA OBSCURA. *Sto. testâ obliquâ subquadratâ, pallidissimè rubro variegatâ, tuberculis rotundatis plicisque rugatâ; spirâ parvâ, exertâ; ultimo anfractu ad suturam plicato elevato inter plicas profundè furoto, tum carinâ tuberculatâ elevatâ et ad medium carinæ duplicatâ prominenti cincto;*

STOMATIA.—PLATE I.

inter carinas excavato; infra irregulariter tuberculato.

THE OBSCURE STOMATIA. Shell obliquely subquadrate, varied with very pale red, wrinkled with rounded tubercles and plaits; spire small, exerted; the last whorl plaited and excavated at the suture; deeply pitted between the plaits; then belted with an elevated tubercled keel, and at the middle with a doubled prominent keel; excavated between the keels; irregularly tubercled below.

LAMARCK. Anim. sans Vert., sp. 2.

Hab. Suez.

This remarkable form may possibly only represent a variation of *St. phymotis*, and its identification as Lamarck's shell is by no means clear. It is admitted here, however, as it is recognised in collections.

Species 4. (Fig. a, b, Mus. Brit.)

STOMATIA TUBERCLATA. *Sp. testâ auriformi, valdè depressâ, spiralliter striatâ, variegatâ, ad suturam valdè plaitâ; supra et infra mediam anfractuam bicarinatâ; carinis tuberculatis; aperturâ magnâ, labio columellari usque ad apicem perspectivè spirali.*

THE TUBERCLATED STOMATIA. Shell auriform, much depressed, spirally striated, variegated, strongly plaited at the suture; two-keeled above and below the middle of the whorls; keels tuberculated; aperture large, columellar lip perspectivevely spiral as far as the apex.

A. ADAMS (Microtis). Proc. Zool. Soc., 1850.

Microtis tuberculata, H. and A. Adams.

Hab. Isl. Capul. Philippines.

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502

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14

STOMATIA.

PLATE II

Species 5. (Mus. Adams.)

STOMATIA VARIIGATA. *Sto. testis oblongo et recto, subulâ, angustâ, fusco rubescente, flavo-roseo, radiâ, spirâ elevatâ, acuminatâ, ultimo costâ tenui. Columnellâ; aperturâ parabolâ, ovatâ, area post columnellâ.*

THE VARIIGATED STOMATIA. Shell subequally elevated, solid, narrow, reddish-brown, variegated with flames; spire raised, acuminated; last whorl very oblongly biangular; aperture a very oblique, large, narrow rather thick.

H. ADAMS (Stomatella). Proc. Zool. Soc., 1850.

Hab. Mauritius.

Although smooth, like a *Sto.*, this species has more the form and every obviously the two spiral keels of a *Stomatia*.

Species 6. (Mus. Brit.)

STOMATIA DEPRESSATA. *Sto. testis parva, trochiformi, strâ concentricâ et radiâ; spirâ albâ deorsum, pallidâ, flavâ et roseo-purpureâ variegatâ, spirâ elevatâ, acuminatâ, costâ tenui.*

THE DEPRESSATED STOMATIA. Shell small, trochiform; decessated with concentric striae and spiral riblets, pale, ornamented with concentric red flames; spire elevated, wholly biangular.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Island of Luzon, Philippines.

Species 7. (Mus. Brit.)

STOMATIA ACUMINATA. *Sto. testis parva, fusâ, ovalatâ, subtrochiformi; spirâ elevatâ, apicâ acuminatâ; ultimo anfractu depresso, ad suturam radiâ pilvato, medio, supra et infra truncato, costâ medianâ prominenti, tuberculatâ.*

THE ACUMINATED STOMATIA. Shell small, brown, cancellated, rather trochiform; spire elevated,

apex acuminated; last whorl depressed, strongly plated at the suture, three-ribbed in the middle above and below; middle rib prominent, tubercle lateral.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Philippines.

Species 8. (Fig. a, b, Mus. Brit.)

STOMATIA BURBA. *Sto. testis tenui, depressâ, suborbiculatâ, rubrâ, albo maculatâ, medio et superne bicarinatâ; carinis unguiformibus; aperturâ subovatâ, columnellâ angustâ reflexâ, area post columnellâ albâ.*

THE RED STOMATIA. Shell thin, depressed, suborbicular, red, white spotted, two keeled in the middle and above; keels beaded; aperture subovate, columnella narrowly reflected, area behind the columnella white.

LAMARCK (Stomatella). Anim. sans Vert. sp. 2.

Hab. Philippine Islands, Korea.

One of the finest examples of the more orbicular form among the *Stomatia*.

Species 9. (Mus. Brit.)

STOMATIA LIEUTA. *Sto. testis orbiculatâ, depressâ, stramineâ, fusco variegatâ, costellis subæquatibus, tenuibus levitâ, medio carinatâ, ad suturam pleris porris numerosis rugatâ.*

THE RIDGED STOMATIA. Shell orbicular, depressed, straw-colored, variegated with brown, keeled in the middle, ridged with thin, nearly equal ribs, wrinkled with numerous small plaits at the suture.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. — ?

STOMATIA.—PLATE II.

Species 10. (Mus. Brit.)

STOMATIA ANGULATA. *Sto. testâ orbiculatâ, depressâ, pallidâ, striatâ novulis strigisque fuscis subcircularibus variegatâ, nânte declinatâ, ad suturam plicatâ; propè suturam planulatâ, medio et suprâ biconatâ, infra liratâ.*

THE ANGULAR STOMATIA. Shell orbicular, depressed, pale, variegated with greenish-brown spots and stripes; plicated at the suture, flattened near the suture, two ribbed in the middle and above; ridged below.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Isl. Luzon, Philippines.

Species 11. (Fig. a, b, Mus. Brit.)

STOMATIA DUPLICATA. *Sto. testâ subauriculiformâ, rufopallidâ, declinatâ, ambulatim spiritaliter striatâ, spirâ marginulâ, angulatis biangulatis, angulato ultimo medio biconatâ, costis marginalibus, usq. infra, alterâ supra medium dispositis, aperturâ mediocri, obliquâ.*

THE DOUBLE-RIDGED STOMATIA. Shell subauricular, variegated, raised, wavy spirally striated; spire

rather large, whorls biangular; last whorl two-ribbed, ribs beaded, one placed below, the other above the middle; aperture medium-sized, oblique.

SOWERBY. Genera of Shells.

Hab. Isl. Mindanao, Philippines.

A very well distinguished species, in form between the orbicular and the auricular, but inclining to the latter.

Species 12. (Fig. a, b, Mus. Nobis.)

STOMATIA DUCLESSA. *Sto. parvâ, orbiculari, depressâ, fulco-rubescenti, strigis fusco-rubris obliquis ornatâ, costis marginalibus tenuibus liratâ, supra medium angulatum costis oratâ tuberculatis bicarinatâ; aperturâ subauriculiformâ, mediocri.*

THE DUCLESSID STOMATIA. Shell small, orbicular, depressed, reddish-brown, ornamented with oblique stripes of red-brown, two-keeled above the middle of the whorls with sharply tuberculated ribs. Aperture subauriform, middle-sized.

SOWERBY.

Hab. — ?

MONOGRAPH

OF THE GENUS

G E N A.

"If there is a power above us,
(And that there is, all nature cries aloud
Through all her works)"—*Admission.*



2a



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22



4a



1b



4b



5



6



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G E N A.

PLATE I.

Genus GENA, *n. sp.*

Posterior end depressed, oblong, apex obtuse and serrate, with a pit, anterior end, aperture, and suture, spirally striated. Operculum entire.

Shell orbiform, flattened, obliquely subtriangular, striated; spire small, scarcely exerted; aperture very large, ovate, partly within. Operculum entire.

Generally the GENA may be distinguished from the other two Genera of the Section by the cylindrical form and smooth surface, although several of the smaller species have a suture that is not elevated. The animals live among stones or coral reefs at the bottom. A large proportion of the specimens of the shell of the late Mr. Cuming's collection were the result of the late Mr. Cuming's collection from the Philippines, Australia and some of the Pacific Islands and a very small few.

Species 1. (Mus. Brit.)

GENA TENEREA. *Gen. testis parvum, convexo-planum, spirale striatum, postice depressum, apice serratum, antice emarginatum, apertura, suture, spirale striata, operculum intantum.*

THE TENDER GENA. Shell small, flattened, flattened, spirally striated, very pale fulvous, variegated with red; spire minute, last whorl depressed above the middle, articulated.

A. ADAMS, Proc. Zool. Soc., 1850.

Hab. Isl. Mindoro, Philippines.

More elongated and narrow than any other species.

Species 2. (Fig. a, b, Mus. Brit.)

GENA LUTEA. *Gen. testis latum, rubro vel fusco variegatum, laevigatum, obliquum oblongum, postice rix depressum, spiram minutam, fere planularem.*

THE YELLOW GENA. Shell yellowish, variegated with red or brown, smooth, obliquely oblong, posteriorly scarcely depressed; spire small, almost flat.

LINNEUS (Patella). *Syst. Nat. Naturæ.*

Synonyma auctorum, Lamarek.

Hab. Eastern Seas.

Species 3. (Fig. a, b, Mus. Nobis.)

GENA PLANULATA. *Gen. testis oblongum, convexo-planum, laevigatum, striatum, circumscissum, stertis subtrijugis vel circumscissis, fusco rubroque variegatum; spiram minutam, lateralem descendente; labio columellato albo, lato, raris suturam suborbis.*

THE FLATTENED GENA. Shell oblong, convex-flattened, finely striated, greenish, variegated with greenish stripes or brown articulated bands and clouds; spire very small, laterally decumbent; columellar lip white, broad, rather callous toward the suture.

LAMAREK (Stomatella). *Hist. Nat. Anim. s. Vert.*

Hab. Isl. Canizuing, Philippines.

Species 4. (Fig. a, b, Mus. Brit.)

GENA STRIATA. *Gen. testis haliotoides, spirale striatum, obliquum oblongum, subinflatum, flammulis strigosis rubris vel subsericulis variegatum; spiram exertam; ultimum angustum, dorso prope suturam depresso, subconvexato, tum subgibboso, deinde subdepresso, ad medium obliquum angulato; apertura elongata, labio extenso, flexuoso supra medium.*

THE STRIPED GENA. Shell haliotis-shaped, spirally striated, obliquely oblong, rather inflated, variegated with red or greenish stripes and flames; spire exerted; last whorl depressed at the back, slightly excavated near the suture, then somewhat gibbous, thence depressed, obliquely inflated at

the middle; aperture elongated, outer lip flexuous above the middle.

A. ADAMS. Proc. Zool. Soc., 1850.
Hab. Isl. Mindoro, Philippines.

Species 5. (Fig. *a, b*, Mus. Brit.)

GENA CONCINNA. *Gen. testâ parvâ, inflatâ, subobliquâ, albâ, rubro variegatâ; spirâ productâ, acuminatâ; ultimo anfractu obliquo, supernè declivi; aperturâ mediocri, intus variegatâ.*

THE NEAT GENA. Shell small, inflated, rather oblique, whitish, varied with red; spire produced, acuminate; last whorl oblique, sloped above; aperture medium-sized, variegated within.

GOULD (Stomatia). Shells of American Expedition.
Hab. Sandy Island.

This little species has the form which more usually characterizes the *Stomatia*.

Species 6. (Fig. *a, b*, Mus. Brit.)

GENA LINEATA. *Gen. testâ parvâ, inflatâ, suborbiculari, subrosâ, lineis rubris obliquis ornatâ; spirâ parvâ, acuminatâ; aperturâ subrotundâ; labio columellari albâ, latâ, planulatâ.*

THE LINEATED GENA. Shell small, inflated, suborbicular, pinky, ornamented with red, oblique lines; spire small, acuminate; aperture rather rounded, columellar lip white, broad, flattened.

A. ADAMS. Proc. Zool. Soc., 1850.
Hab. ———?

This pretty little shell was in the Cumingian collection, but its locality was unknown.

Species 7. (Mus. Brit.)

GENA PLUMBEA. *Gen. testâ auriformi, latâ, plumbeâ, minutissimè decussatâ, medio et infrâ inflatâ, suprâ median depressâ, ad suturam subgî bosâ; aperturâ oblongâ, labio externo sinuato.*

THE LEAD-COLOURED GENA. Shell ear-shaped, broad, lead-coloured, very minutely decussated, inflated in the middle and under, depressed above the middle, a little gibbous at the suture; aperture oblong, outer lip sinuous.

A. ADAMS. Proc. Zool. Soc., 1850.
Hab. Java.

The dull leaden colour of this shell gives it a peculiar appearance; and the minute crossing striae form a character worth noting.



G E N A.

PLATE II.

Species 8. (Fig. a, b, Mus. Brit.)

GENA VARIA. *Gena, testâ parvâ, variegatâ, ârcuatâ, obliquâ, p. stâ subcapitatâ, antâ subcapitatâ; spirâ parvâ, arcuatâ, acuminatâ, labio ext. albâ, alba, valvâ arcuatâ.*

THE VARIOUS GENA. Shell small, variegated, smooth, oblique, posteriorly rather narrowed, anteriorly slightly expanded; spire a little exserted, acuminated, columellar lip white, much arched.

A. ADAMS, Proc. Zool. Soc., 1850.

Hab. Isl. Mindoro, Philippines.

Nearly resembling *Gena lutea*, but broader and not so much depressed on the upper part of the last whorl.

Species 9. (Mus. Brit.)

GENA ORNATA. *Gena, testâ solidâ, orbiculatâ, fusco-rubri, lineâ nigriâ, albo articulatis spiræ tubus ornatâ; ultimo angustâ dorso extusâ; spirâ parvâ, acuminatâ, rubrâ; aperturâ cordicâ, fulvâ.*

THE ORNATE GENA. Shell solid, orbicular, red-brown, ornamented with black spiral lines articulated with white; last whorl rounded at the back; spire small, acuminated, red; aperture mushroom-shaped, fulvous.

A. ADAMS, Proc. Zool. Soc., 1850.

Hab. Isl. Ticao, Philippines.

Species 10. (Mus. Brit.)

GENA CALIGINOSA. *Gena, testâ obliquâ, elevatâ, laevissimâ, nigri; spirâ elevatâ, acuminatâ; aperturâ obliquâ ovatâ; labio columellari albo, levit. arcuatâ.*

THE DARK GENA. Shell oblique, elevated, very smooth, black; spire elevated, acuminated; aperture obliquely ovate; columellar lip white, gently arched.

H. & A. ADAMS.

Hab. — ?

Species 11. (Fig. a, b, Mus. Brit.)

GENA NIGRA. *Gena, testâ obliquâ auriformi, elongato-ovali, convexâ, laevi, nigri vel variegatâ, cutis violaceo-aterâ; spirâ minutâ, fere terminati; aperturâ ovatâ.*

THE BLACK GENA. Shell obliquely auriform, elongated oval, convex, smooth, black or variegated, purplish-pearly within, spire very small, nearly terminal, aperture ovate.

QUOY, Voy. de l'Australasie, t. 17, figs. 154, 155.

Hab. Tonga-Tabou, Sandwich Islands.

Species 12. (Mus. Brit.)

GENA STRIGOSA. *Gena, testâ obliquâ ovatâ, convexâ, variegatâ et spirâ levit. strigatâ, minutâ fasciculatâ striatâ; aperturâ oblongâ, ovatâ; labio ext. r. sic sinuato; spirâ subplanulatâ.*

THE SHAGGY GENA. Shell obliquely ovate, convex, variegated and spirally striped, with minute striae in bundles; aperture oblong, ovate; outer lip scarcely sinuated; spire partly flattened.

A. ADAMS, Proc. Zool. Soc., 1850.

Hab. — ?

More uniformly convex than *Gena striatula*, with the striae inclining to run in groups, and with faint stripes traceable through the clouding and marking of the colours.

April, 1874.

GENA.—PLATE II.

Species 13. (Mus. Cuming.)

GENA NEBULOSA. *Gen. testâ parvâ, breviter auriformi, convexâ, pallidè luteâ, flammulis undulatis variegatâ; columellâ allo crasso rimamumbilicatum obtegenti.*

THE CLOUDED GENA. Shell small, shortly auriform, convex, pale yellow, variegated with undulated flames; columella with a thick callus covering the umbilical border.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Australia.

Species 14. (Mus. Brit.)

GENA DILECTA. *Gen. testâ parvâ, angustâ, phanulatâ, pallidè purpureo variegatâ; ultimo anfractu ad marginem aperturæ angustissimo.*

THE FAVOURED GENA. Shell small, narrow, flattened, variegated with pale purple; last whorl very narrow at the margin of the aperture.

GOULD. — ?

Hab. — ?

Species 15. (Mus. olim.) Metcalfe.)

GENA PULCHELLA. *Gen. testâ parvâ, ovali, albâ, rufo maculatâ, convexâ, spirâliter striatâ; spirâ prominenti; aperturâ magnâ, ovali, intus iridescenti.*

THE PRETTY GENA. Shell small, oval, white, red-spotted, convex, spirally striated; spire rather prominent; aperture large, oval, iridescent within.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. — ?

Species 16. (Mus. Nobis.)

GENA ASPECULATA. *Gen. testâ haliotoidi, obliquè ovatâ, liris spiralibus et striis concentricis decussatâ, fusâ, mediâ albo unifasciatâ; apice prominulo.*

THE RAMPED GENA. Shell haliotis-shaped, obliquely ovate, decussated with spiral ridges and concentric striae, brown, with a single white band in the middle; apex rather prominent.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. — ?

MONOGRAPH

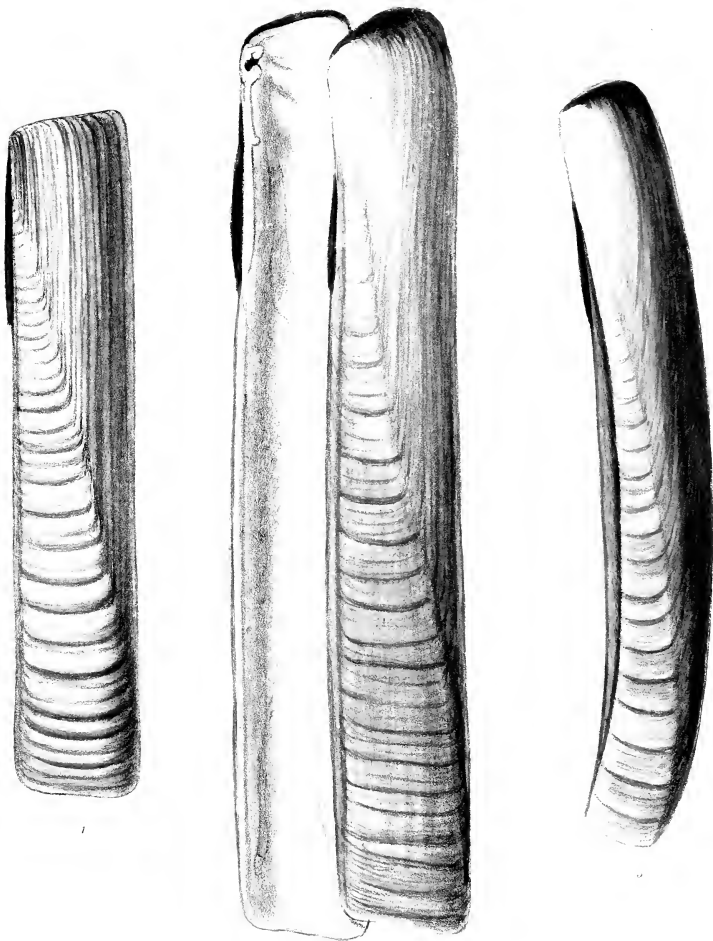
OF THE GENUS

S O L E N.

"T'is but to hold, to muse, to feel, and fall."

* * * * *

"Converse with Nature's charms, and see her stores unroll'd."—*Byron*.



SOLENS.

PLATE I.

Genus SOLEN, *Linnaeus*.

Testa arcuata, transverse elongata, recta, vel leviter arcuata, utrinque plus minusve truncata, limbus, umbonibus terminalibus. Cardo elongatus, dentibus uno et duobus principalibus. Ligam. n. utrumque. Impressio muscolaris antica elongata. Impressio pulvis ad terminum quadratum sinistri.

Shell equivalve, transversely elongated, straight, or slightly arched, more or less truncated, gaping, with terminal umbones. Hinge elongated, with one and two principal teeth. Ligament external. Anterior muscular impression elongated. Pulveral impression with a square sinus.

There would seem to be no sufficient reason to separate generically the straight from the curved valves. Undoubtedly form a capital genus, distinguished from others of the family by having terminal umbones. The shell is also divided into two more or less equal parts by a unguinal line from the apex in the anterior to the posterior lower corner of the truncated posterior extremity.

The habits of the Solens are peculiar. They dig deep burrows in the sand, into and out of which they spring with amazing rapidity by a sudden contraction and expansion of the foot. They dig and leap forward with great power. They are found in most temperate and tropical countries, but no country possesses many species. On the coast of Britain we have several well-known species; Mr. Cuming found several in the Philippines, but most of them are altered slightly in almost as many countries as species.

Species 1. (Mus. Brit.)

SOLENS TRUNCATUS. *Sol. testâ latâ, rectâ, subcompressâ, fuscâ purpurâque strigatâ, ad terminum posticum latâ et perpendiculariter truncatâ; ad terminum anticum obliquè et acutè truncatâ, angulo anticeo-centrali acuto.*

THE TRUNCATED SOLEN. Shell broad, straight, sub-compressed, striped with purple bands, truncated broadly and perpendicularly at the posterior end;

truncated obliquely and sharply at the anterior end, with the antero-ventral angle acute.

SOWERBY. Genera of Shells.

Cydonensis, Dunker.

Hab. Ceylon.

Solen truncatus, including the varieties, forms a very good and easily recognisable species.

Species 2. (Mus. Sowerby.)

SOLENS VERRA. *Sol. testâ rotundiorâ, elongatâ, subdepressâ, r. costis umbonâ subcostâ, anticâ subobliquè paulo arcuatâ, posticâ subobliquè truncatâ; margine ventrali sic contractâ; anticeque dorsali medio paulo elevatâ.*

THE SWORD SOLEN. Shell rather straight, elongated, sub-depressed, rather pink towards the umbones, anteriorly subobliquely truncated; ventral margin scarcely contracted; dorsal margin a little raised in the middle.

LINEUS. Systema Naturæ.

Hab. Great Britain.

A well-known species, the largest of the true Solens.

Species 3. (Mus. Brit.)

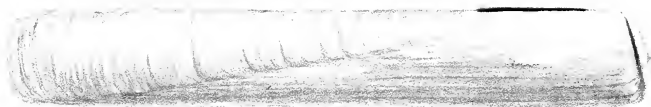
SOLENS LINNÆ. *Sol. testâ angustiorâ, arcuatâ, depressâ, subhis epidermide pallidè rosâ vel grisâ strigatâ, ad terminum anticum subrotundâ, ad terminum posticum rotè truncatâ; margine dorsali arcuatim excavato; margine ventrali arcuatim convexâ.*

THE SWORD SOLEN. Shell very narrow, curved, depressed, striped with pale rose or grey beneath the epidermis, straightly truncated at the posterior end; a little rounded at the anterior end; dorsal margin sloped out in a curve; ventral margin convex in an arch.

LINNÆUS. Systema Naturæ.

Silopa ensis. Schumacher.

Hab. Great Britain.



SOLEN.

PLATE II.

Species 3. (Fig. 6, Mus. Nobis.)

It is thought desirable to present this common variety of SOLEN FUSUS, because Mr. Dunker seems to have given the name *Solen armuta* to specimens in the British Museum from Aru Island, which can in no way be distinguished from the British forms.

Species 4. (Mus. Nobis.)

SOLEN MARGINATUS. *Sol. testâ angustiusculâ, convexâ, fideâ; epidermidâ tenui; margine dorsali recto, arcu dorsali lineari, inconspicuo; arcu umbonali latâ, subangosâ; margine ventrali medio ex excavato; margine postico rectiusculo; margine antico obliquo, declivo, uncostato, post costam canali profundo constricto.*

THE BORDERED SOLEN. Shell rather narrow, convex, fulvous; epidermis thin; dorsal margin straight, dorsal area linear, inconspicuous; umbonal area broad, rather rough; ventral margin very slightly excavated in the middle; anterior margin oblique, raised, single-ribbed, constricted behind the rib by a deep canal.

PULTESY.

Solen cogina, Pennant, non Linnaeus.

Hab. Britain.

Species 5. (Mus. Brit.)

SOLEN GRANIOS. *Sol. testâ latâ, subcompressâ, purpureo strigatâ, anticâ subattenuatâ; margine dorsali rectiusculo, arcu latiusculâ; margine ventrali anti-*

mediana paulò angustato, margine postico angusto, subrotundatum quadrato, margine antico simplici, valè obliquo, ad marginem ventralem oblique acuminato.

THE LARGE SOLEN. Shell broad, subcompressed, striped with purple, anteriorly rather attenuated; dorsal margin rather straight, area rather broad; ventral margin a little narrowed before the middle, posterior margin narrow, rather roundly square; anterior margin simple, very oblique, obliquely acuminate at the ventral margin.

DUNKER, Proc. Zool. Soc., 1861.

Hab. Philippines.

Bicolor in proportion than *Solen truncatus*; rather narrowed towards the posterior end, and the anterior margin more oblique.

Species 6. (Mus. Brit.)

SOLEN BELVIN. *Sol. testâ rectiusculâ, postico subcompressâ et attenuatâ, purpureo strigatâ; margine dorsali postico subdeclivi; margine postico angusto, rotundo; margine antico abruptè truncato.*

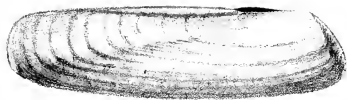
THE SHORT SOLEN. Shell rather straight, posteriorly a little flattened and tapering, striped with purple; dorsal margin posteriorly sloped; posterior margin narrow, rounded; anterior margin abruptly truncated.

GRAY, in Brit. Mus.

Hab. American Seas.

Differing from *Solen truncatus* in being sloped or tapering towards the posterior end.

April, 1874.



7



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13

SOLEN,

PLATE III

Species 7. (Mus. Brit.)

SOLEN ROSTRUM-ANALIS. *Sol. testa brevis, pediculis arcuatis sublimis epibolusibus purpureis arcuatis, costis et ad umbones rosco-purpureis, postice subbifurcata et planulata, utriusque costulae medio concavissimae, margini antico leviter, rabilis obliquae. Epibolus nitenti, auro-schistoso.*

THE DUCK'S BILL SOLEN. Shell short, a little curved, purple-banded under the epibolus, pale purple at the umbones and with a rather tapering and flattened posteriorly ventral area near the apex; anterior margin scarcely convex. Epibolus shining, greenish-gold.

DUNKER, Proc. Zool. Soc., 1861

Hab. — ?

Species 8. (Mus. Brit.)

SOLEN DELISSEI. *Sol. testa brevis, costis, utriusque truncatis, testae utriusque rotundae, pallidae, nervosa antice leviter, utriusque deorsum convexa.*

DELISSEI'S SOLEN. Shell short, straight, truncated at both ends, evenly rounded all over, pale; anterior margin oblique, constructed with a deep canal.

CHISEL. Illustrations of Mytiloid groups.

Hab. — ?

This curious little *Solen* is marked finely all over, and has a very strong structure close to the anterior margin.

Species 9. (Mus. Brit.)

SOLEN VITREUS. *Sol. parvè, pallidè, tenui, pallidulè, rotundulè, margini postice truncato; margine antico obliquè, ad auriculas rotundum acutè.*

THE GLASS SOLEN. Shell small, pale, thin, pellucid, rather straight; posterior margin truncated, anterior margin oblique, sloped upwards at the ventral margin.

DUNKER, Proc. Z. S. Soc., 1861

Hab. Malacca.

This pretty little shell is so thin and transparent that the complicated system of muscle and mantle-marks is seen on the outer surface.

Species 10. (Mus. Brit.)

SOLEN SUGANI. *Sol. testa recta, angusta, utriusque truncata, capsulae utriusque purpureis ovalino carisquod, nervosa dorsali recto, area angustissima, margine recto alio, rotundulè, prope terminum anteriori convexa, non proe antico recto, canali constricto.*

SUGANI'S SOLEN. Shell straight, narrow, truncated at each end, varied in every part with purple striped spots; dorsal margin straight, area very narrow, ventral margin rather straight, contracted near the anterior end; anterior margin straight, contracted with a groove.

GRAY.

S. in vesperator, Philippin.

Hab. — ?

A pretty varied shell.

Species 11. (Mus. Brit.)

SOLEN JONESII. *Sol. testè brevis, rotundulè, subtè-epibolusibus fulvo-purpureis, ad umbones purpureo-tinctè, post utriusque purpureo nitentulè; margine antico levissimè, tumidi presso, arcu umbonali latè, area dorsali lineari, margine ventrali prope marginem anteriorem acutè.*

JONES'S SOLEN. Shell short, rather straight, under the epibolus brownish-grey, tinted at the umbo with purple, with a ray of purple behind the margin; anterior margin thickened, then depressed; umbonal area broad, dorsal area linear, ventral margin sloped upwards near the anterior margin.

DUNKER, Proc. Zool. Soc., 1861

Hab. — ?

SOLENS.—PLATE III.

Species 12. (Mus. Brit.)

SOLENS SCALPRUM. *Sol. testâ pallidâ, compressâ, utrinquè paulò arcuatâ; epidermidè tenui, pallidâ, ad marginem inferiorè arcæ umbonalis rugatâ; margine dorsali paulò arcuato; margine ventrali propè terminos arcuato, medio rixè excavato.*

TIBI SCALPELLI SOLEN. Shell pale, compressed, a little arched at each end; epidermis thin, pale, wrinkled at the lower margin of umbral area; dorsal margin a little curved; ventral margin curved near the ends, very slightly excavated in the middle.

KING Zool. Journal.

Solen Luzonicus, Dunker.

Hab. Sea-Bear Bay, Patagonia. *King.*—Philippines, *Cloning*.

It is quite impossible to discover any specific

difference between the Patagonian and Philippine shells in the British Museum.

Species 13. (Mus. Brit.)

SOLENS PHILIPPICUS. *Sol. testâ angustâ, paulò arcuatâ, pallidâ, maculis pallidissimis fulvo-purpureis variegatâ; margine ventrali utrinquè paulò acclivi; margine dorsali medio arcuatim depresso; margine antico obliquo, constricto.*

PHILIPPI'S SOLEN. Shell narrow, a little curved, pale, varied with very pale fulvous-purple; ventral margin a little sloped upwards at each end; dorsal margin depressed in a curve in the middle; anterior margin oblique, constricted.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Australia.



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14



S O L E N.

PLATE IV.

Species 14. (Mus. Brit.)

SOLEN SCAIUS. *Sol. testâ latâ, brevi, pâlâ, pallidâ arcuatâ, compressâ; costâs 41. striae brevæ, marginæ dorsali depressæ, a costâ, axiali angustâ; marginæ posticæ subobtusâ; nervis antice elevatâ, obliquâ, arcuatâ; marginæ ventrali utrinquè pallidâ arcuatâ.*

THE SHORT-SWORD SOLEN. Shell broad, short, pale, a little curved, compressed; epidermis straw-coloured; dorsal margin depressed, curved, area narrow; posterior margin rather rounded, anterior side raised, oblique, curved; ventral margin a little sloped upwards at each end.

GOTTS. United States Exploring Expedition.

Hab. — ?

Species 15. (Mus. Nobis.)

SOLEN GUINEENSIS. *Sol. testâ brevi, rectâ, latâ, ad umbones radiatim purpureâ, ad apicem suborbiculatâ purpureâ-striatâ; marginæ posticâ truncatâ, rectâ; marginæ anticâ subobliquè truncatâ, contractâ.*

THE GUINEA SOLEN. Shell short, straight, broad, radiating with purple at the umbones, striped with purple on the umbonal area; posterior margin truncated, straight; anterior margin rather obliquely truncated, contracted.

GRAY. Brit. Mus. Hanley, Species of Shells.

Hab. Co. of Guinea.

Species 16. (Mus. Nobis.)

SOLEN LAMARCKII. *Sol. testâ brevi, purpureâ, ad arcum posticam striatâ, posticè subobtusâ, propè marginem anticum purpureâ uncinatâ; marginæ anticâ subobliquè truncatâ; marginibus dorsali ven-*

traliqûe rectis, marginæ posticâ suprà infraquè subrotundatâ.

LAMARCK'S SOLEN. Shell short, purple, striped at the posterior area, posteriorly a little tapering, a single purple ray near the anterior margin; anterior margin rather obliquely truncated; dorsal and ventral margins straight; posterior margin a little rounded above and below.

CHEMN. Illustrations Conchyliologiques.

Hab. Ceylon.

Species 17. (Mus. Brit.)

SOLEN GRACILIS. *Sol. testâ elongatâ, angustâ, tenui rectiusculâ, pallidè fulvâ; axis indistinctâ; marginæ posticâ truncatâ, rectâ; marginæ anticâ obliquè truncatâ, simplici.*

THE SLINDER SOLEN. Shell elongated, narrow, thin, rather straight, pale fulvous; areas indistinct; posterior margin truncated, straight; anterior margin obliquely truncated, simple.

PHILIPPI. Abbildungen.

Hab. Hakodaki, Japan.

Species 18. (Mus. Brit.)

SOLEN ROSTRIFORMIS. *Sol. testâ angustâ, compressâ, pallidè roseâ striatâ; posticè subobtusâ, ad terminum rotundatâ; marginæ anticâ elevatâ, subobliquâ.*

THE BEAK-SHAPED SOLEN. Shell narrow, compressed, striped with pale rose; posteriorly a little tapering, rounded at the end; anterior margin raised, rather oblique.

DUNKER. Proc. Zool. Soc., 1861.

Hab. — ?

More narrow and tapering than *Solen rostrum-ovate*

SOLENS.—PLATE IV.

Species 19. (Mus. Brit.)

SOLENS CORNEUS. *Sol. testâ angustâ, rectâ, pallidâ, utrinque truncatâ; propè umbones pallidè purpureo tinctâ; epidermidè corneo, pallido.*

THE HORNED SOLEN. Shell narrow, straight, pale, truncated at each end: tinged with pale purple near the umbones; epidermis horny, pale.

LAMARCK. Animaux sans Vertèbres.

Hab. Java.

Species 20. (Mus. Brit.)

SOLENS MALACCENSIS. *Sol. testâ elongatâ, angustâ,*

rotundâ, rectiusculâ, fumoso-fulvâ, areis obliquis distinctis; margine postico truncato, margine dorsali rectiusculo; areâ dorsali angustâ; termino antico truncato, paulò acclivi.

THE MALACCA SOLEN. Shell elongated, narrow, rounded, rather straight, smoky-fulvous, oblique; areas distinct; posterior margin truncated; dorsal margin rather straight; dorsal area narrow; anterior margin truncated, a little sloped upwards.

DUNKEE. Proc. Zool. Soc., 1861.

Hab. Malacca.



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SOLE N.

PLATE V.

Species 21. (Fig. a, b, c, Mus. Brit.)

SOLE AMBIGUUS. *Sol. testâ solidâ, paulò arcuatâ, anticâ-convulsâ, posticâ subexpansâ; epidermid. crasso, rugato, fusco-nigrescenti, ultra marginis celsissimâ, acutè junctè radiis fulvis prope marginem laterâlibus pictâ; umbonibus a termino subdistantibus; margine cardinali crasso, arenaria eis depressâ, margine postico latè truncato; margine antico incrassato, obliquè truncato.*

THE AMBIGUOUS SOLEN. Shell solid, a little arched, rather deep, and posteriorly a little expanded; epidermis thick, wrinkled, covered with a blackish-brown epidermis extending beyond the margins; in a young state painted with fulvous rays becoming broad towards the margin; umbones some distance from the end; cardinal margin thick, depressed, with a very slight curve; posterior margin broadly truncated; anterior margin thick, obliquely truncated.

LAMARCK. Anim. sans Vert., Solen, Sp. 7.

Solen rotulâ, C. B. Adams.

Solen obliqua, —?

Solen Philippinensis, Hanley.

Hab. Panama, Philippines.

The umbones of this shell being placed at some distance from the anterior termination, give it a character not strictly agreeing with the "Razor shells," but leading towards the group represented by *Solen cultellos*, which we shall include in the present monograph.

Species 22. (Mus. Nodis.)

SOLE LINEARIS. *Sol. testâ rectâ, elongatâ, angustissimâ, tenui, purpureo rubescenti, fasciatâ; terminibus tenuitatis; marginibus dorsali ventralique rectis; areâ dorsali lineari.*

THE LINEAR SOLEN. Shell straight, elongated, very narrow, thin, banded with reddish-purple; ends truncated; dorsal and ventral margins straight; dorsal area linear.

CHENNITZ. Conch., vol. xi. Pl. 138, f. 19, t. 1, 2.

Hab. —?

This is represented by a very young shell of doubtful character in the British Museum, but the specimens from which the present figure is taken present unmistakable characters.

Species 23. (Mus. Brit.)

SOLE VAGINIFORMES. *Sol. testâ breviusculâ, arcuatâ, utrinque truncatâ, posticè paulò expansâ, anticè angustiusculâ, fasciis pullulè rubris pictâ; epidermid. tenui; margine antico abruptè truncato, acuto; marginibus dorsali ventralique arcuatis, areâ dorsali medio subexpansâ.*

THE SHEATH-LIKE SOLEN. Shell rather short, curved truncated at each end, a little expanded posteriorly, rather narrowed anteriorly, painted with red bands; epidermis thin; anterior margin abruptly truncated, sharp; dorsal and ventral margins arched, dorsal area a little expanded in the middle.

LAMARCK. Anim. sans Vert., Solen, Sp. 3.

Hab. Van Diemen's Land.

Species 24. (Mus. Brit.)

SOLE LUZONENSIS. *Sol. testâ rectâ, rotundiusculâ, fasciis purpureis, ad aream medianam arcuatis, pictâ, epidermid. viculè fusco-lobatâ; intus purpureâ; termino antico obliquè truncato, margine ocellici; termino postico subattenuatâ, paulò ocellici, margine rotundo.*

THE LUZON SOLEN. Shell short, rather straight, painted with purple bands, curved on the medial area, covered with a bright brown epidermis, purple within; anterior end obliquely truncated, with margin sloped upwards; posterior end rather attenuated, a little sloped upwards, margin rounded.

DUNKLE. Proc. Zool. Soc., 1861.

Hab. Isl. Luzon, Philippines.

More straight and narrow than *Solen rostriformis*.



S O L E N.

PLATE VI.

Species 25. (Mus. Brit.)

SOLEN VINDOS. *Sol. testâ parvâ, pallidâ, convexâ, tenui, paulo a costâ posticâ subtruncatâ, marginâ subrectâ, subrotundâ, anticiâ, marginâ tenuicollâ aëlicâ, obliquâ truncatâ, subobliquâ; marginâ dorsali rectâ; arâ angustissimâ, convexâ.*

THE SOLEN SOLID. Shell small, pale horny, thin, a little arched, posteriorly subtruncated, with margin a little rounded, anteriorly rather broader, with terminal margin sloped upwards, obliquely truncated, sub-fleeted; dorsal margin straight; ventral margin convex.

SAV. Journ. Acad. Nat. Sci., Philadelph. 1844.

Hab. North America.

Species 26. (Mus. Brit.)

SOLEN PELIULI. *Sol. testâ brevî, costâ, purpureâ, plicatâ, apicâ sub- fusca, angustâ anticiâ; marginâ dorsali rectiusculâ; arâ angustissimâ; marginâ ventrali paulo convexâ; marginâ posticâ abruptè truncatâ; arâ, ac anticiâ convexâ, obliquâ.*

PLEHILLER'S SOLEN. Shell short, straight, banded with purple, covered with a brown wrinkled epidermis; dorsal margin rather straight; arca very narrow; ventral margin a little ventriform; posterior margin abruptly truncated; anterior margin rather convex, oblique.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Bay of Caracas.

Species 27. (Mus. Brit.)

SOLEN TIMORENSIS. *Sol. testâ rectâ, latâ, lineis fuscisque purpureis pallidâs pectâ; anticiâ obliquè truncatâ, ad marginem ventralium acuminatâ; arâ dorsali angustissimâ; arâ inclinatâ latâ.*

THE TIMOR SOLEN. Shell straight, broad, anteriorly, painted with pale purple lines and bands; ob-

liquely orientated in front, acuminate at the ventral margin; dorsal arca very narrow, middle arca broad.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Timor.

Differing from *Solen truncatus* in the great obliquity of the anterior terminal margin and its acuminate ventral corner.

Species 28. (Mus. Brit.)

SOLEN MACHIA. *Sol. testâ magis, subcompressâ, rectiusculâ, ad terminus aëlicâ, epidermidâ nitenti fusco-subcitrilli indatâ; umbonibus retrorsis; marginâ anticiâ convexâ, convexâ, aëlicâ, costâs umbonibus inclinatâ; marginâ posticâ paulo aëlicâ, subobliquè truncatâ.*

THE MACHIA SOLEN. Shell large, rather compressed, rather straight, sloped at the ends, covered with a shining greenish-brown epidermis; umbones bent backwards; anterior margin, raised, convex, sloped upwards, leaning towards the umbones; posterior margin raised, rather obliquely truncated.

OSLER. — ? MS. Mus. Brit.

Hab. — ? Specimens in the Cunningham collection.

The shell is not straight as *Sola siliqua*, nor curved as *Sola casis*, but nearly straight except at the ends, which are a little turned up.

Species 29. (Mus. Brit.)

SOLEN FOENSI. *Sol. testâ brevî, rectiusculâ, corneo-subcitrilli; marginibus dorsali centralique vix arcuatis; marginâ posticâ obtusè truncatâ, paulo convexâ; marginâ anticiâ acutâ, obliquè truncatâ.*

FOENL'S SOLEN. Shell short, rather straight, greenish-horny; dorsal and ventral margins scarcely

SOLEN.—PLATE VI.

arched; posterior margin obtusely truncated, a little convex; anterior margin sharp, obliquely truncated.

DUNKER, Proc. Zool. Soc., 1861.

Hab. Isl. Zebu, Philippines.

Species 30. (Mus. Brit.)

SOLENS REGULABIS. *Sol. testâ rectâ, brevi, pallidè fulvâ, subrhomboidâ; marginibus ventrali dorsalique*

rectis; terminis obliquè truncatis, antice declivi, postice acclivi.

THE BLUE SOLEN. Shell straight, short, pale fulvous, rather rhomboidal; dorsal and ventral margins straight; ends obliquely truncated, anterior sloped downward, posterior sloped upwards.

DUNKER, Proc. Zool. Soc., 1861.

Hab. Malacca.

The dorsal and ventral margins are straight, and the ends obliquely parallel.



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SOLEN.

PLATE VII.

Fig. 18 *b* (number erroneous), Mus. Brit.
SOLEN CORNUTUS, var. See Species 19.

Fig. 20 *b* (number erroneous), Mus. Brit.
SOLEN LUCIDUS, var. See Species 24.

Species 31. (Mus. Brit.)

SOLEN LEVANI. *Sol. testâ parvâ, albâ, tenui, rectâ, posticâ, antice acutâ; ad terminum anteriorem truncatâ et subobliquè truncatâ; posticâ truncatâ et perpendicularitèr truncatâ, posticâ subcava, non-truncatâ.*

LEAN'S SOLENS. Shell small, pale, thin, straight, posteriorly attenuated; sharply and rather obliquely truncated at the anterior terminus, with a canal behind the terminus, rather rounded at the posterior terminus.

DUNKER, Proc. Zool. Soc., 1861.
Hab. Philippines.

More narrow than *Solen crispus*, Dunker.

Species 32. (Mus. Brit.)

SOLEN EXIGUUS. *Sol. testâ parvâ, pallidè fulvâ, epidermide subcava indatâ, latiusculâ, rectâ, ad aream medianam substrigatâ, anticâ perpendicularitèr truncatâ, posticâ subcava, non-truncatâ.*

THE NARROW SOLENS. Shell small, pale fulvous, covered with a rather golden epidermis, rather broad, straight, a little striped on the middle area, anteriorly perpendicularly truncated, posteriorly rather convexly truncated.

DUNKER, Proc. Zool. Soc., 1861.
Hab. Borneo.

More straight and broad than *Solen Leani*, and of equal breadth throughout.

Species 33. (Fig. *a, b*, Mus. Brit.)

SOLEN ASPERSUS. *Sol. testâ elongatâ, lentissimè arcuatâ, maculis purpurâs rivis cæcis, posticâ terminum anteriorem œclivè, constrictâ; margine dorsali rive excavatâ; margine centrali hanc œclivè.*

THE SPINKLED SOLENS. Shell elongated, very slightly arched, brightly variegated with purple spots, sloped upwards and constricted near the anterior end; dorsal margin scarcely excavated; ventral margin slightly convex.

DUNKER, Proc. Zool. Soc., 1861.
Hab. Australia.

The younger shell is more finely sprinkled with colour and shows the gentle curve more distinctly than when full grown.

Species 34. (Mus. Hanley.)

SOLEN ACINACUS. *Sol. testâ albâ, hanc arcuatâ, breviusculâ, anticâ latiusculâ, posticâ attenuatâ; margine antice acutè et subobliquè truncatè; margine postice angustè, subrotundè.*

THE SCIMITAR SOLENS. Shell white, gently curved, rather short, sloped upwards at each end, rather broad anteriorly, attenuated posteriorly; anterior margin acutely and somewhat obliquely truncated; posterior margin narrow, rather rounded.

HANLEY, Species of Shells.
Hab. —?

We have figured the unique specimen originally described by favour of Sylvanus Hanley, Esq.

August, 1874.

SOLE N.

	Plat.	Species.		Plat.	Species.
acinacius, <i>Hanley</i>	VII.	34	Malaccensis, <i>Dunker</i>	IV.	20
ambiguus, <i>Lamarck</i>	V.	21	marginatus, <i>Pultny</i>	II.	4
asperus, <i>Dunker</i>	VII.	33	obliqua — ?	V.	21
brevis, <i>Gray</i>	II.	6	Pfeifferi, <i>Dunker</i>	VI.	26
<i>Ceylonensis</i> , <i>Dunker</i>	I.	1	<i>Philippinarum</i> , <i>Hanley</i>	V.	21
corneus, <i>Lamarck</i>	IV.	19	Philippianus, <i>Dunker</i>	III.	13
(and Pl. VII., fig. 18 b.)			regularis, <i>Dunker</i>	VI.	30
Delesserti, <i>Chemn.</i>	III.	8	rostriformis, <i>Dunker</i>	IV.	18
ensis, <i>Linnæus</i>	I.	3	rostrum-anatis, <i>Dunker</i> (see Erratum)	III.	7
exiguus, <i>Dunker</i>	VII.	32	rudis, C. B. Adams.....	V.	21
Fonesii, <i>Dunker</i>	VI.	29	scalpeum, <i>King</i>	III.	12
Gaudichardi, <i>Chemn.</i>	III.	7	sicarius, <i>Gould</i>	IV.	14
gracilis, <i>Philippi</i>	IV.	17	Sleanii, <i>Gray</i>	III.	10
grandis, <i>Dunker</i>	II.	5	<i>Tehuclca</i> , Orbigny (see Erratum)		
Guineensis, <i>Gray</i>	IV.	15	Timorensis, <i>Dunker</i>	VI.	27
Jonesii, <i>Dunker</i>	III.	11	truncatus, <i>Sowerby</i>	I.	1
Lamarekii, <i>Chemnitz</i>	IV.	16	vagina, <i>Linnæus</i>	I.	2
Leani, <i>Dunker</i>	VII.	31	vagina, <i>Pennant</i>	II.	4
linearis, <i>Chemnitz</i>	V.	22	vaginoides, <i>Lamarck</i>	V.	23
Luzonicus, <i>Dunker</i>	V.	24	versicolor, <i>Philippi</i>	III.	10
(and Pl. VII., fig. 20 b.)			viridis, <i>Say</i>	VI.	25
<i>Luzonicus</i> , <i>Dunker</i>	III.	12	vitreus, <i>Dunker</i>	III.	9
macha, <i>Oken?</i>	VI.	28			

ERRATUM.

Species 7, Plate III., for *rostrum-anatis*, *Dunker*, read, GAUDICHARDI, *Chemn.*, *Tehuclca*, Orbigny. The fine richly coloured specimen in Mr. Hanley's collection, too late for figuring, has been identified with Mr. Dunker's species, the name of which must become a synonym.

MONOGRAPH

OF THE GENUS

A D E O R B I S.

How exquisitely minute
A marble of "Isign!" *Tennys's*



ADEORBIS.

PLATE I.

Genus ADEORBIS, Wood.

*Testa subglobularis, depressa, umbilicata, alba, antice-
 Alveo pueris, ultimo magno. Aperturæ conca-
 vatae, sub-interuptæ. Operculum nullum.*

Shell subangular, depressed, umbilicated, white; whorls few, last large. Aperture large, peritreme inter-
 rupted. Operculum none.

The little white shells forming this group differ from *Cyclotrochus*, principally in having a more depressed and less conical form, and in the edge of the aperture being interrupted instead of continuous. The genus was erected for the little bicarinated British species. Most of the others have been collected either by Mr. Cuming in the Philippines, or Mr. Arthur Adams in Japan. But the most beautiful species is *Adeorbis Japansi* from Australia.

Species 1. (Mus. Brit.)

ADEORBIS ELEGANS. *Ab. testâ latâ, depressâ, spirâ
 subplanulatâ; ultimo anfractu latissimo; labiis
 externis hepaticè superius sinuatis; umbilico magno.*

THE ELEGANT ADEORBIS. Shell broad, depressed; spire rather flat; last whorl very wide; outer lip elegantly sinuous above; umbilicus large.

A. ADAMS (Cyclotrochus). Proc. Zool. Soc., 1850.
Hab. Isl. St. Thomas.

Species 2. (Mus. MacAndrew.)

ADEORBIS SUBCARNATA. *Ab. testâ moderatè depressâ,
 spirâ paulò exsertâ; ultimo anfractu superius sub-
 angulatâ, infra bicarinato; aperturâ ovatâ; um-
 bilico magno.*

THE LOW-BILLED ADEORBIS. Shell moderately depressed; spire a little exserted; last whorl a little angular above, with two keels below; aperture ovate; umbilicus large.

WALKER (Helix). *Adeorbis carinata*, Wood.
Hab. British Seas.

Species 3. (Mus. Cross.)

ADEORBIS ADAMI. *Ab. testâ rariè depressâ, sinuatis
 concentricè striatâ; aperturâ magnâ, obliquè oblongâ
 labiis externis superius moderatè sinuatis.*

ADAM'S ADEORBIS. Shell much depressed, sinuously concentrically ridged; aperture large, oblique, oblong, outer lip moderately sinuous above.

FISCHELE. Journal de Conchyliologie, 1857.

Hab. Guadeloupe.

Species 4. (Mus. Brit.)

ADEORBIS FLAVA. *Ab. testâ rariè depressâ, plano,
 lato, spiratè striatâ; umbilico magno; aperturâ
 latissima, obliqua.*

THE FLAVY ADEORBIS. Shell much depressed, flat, broad, spirally striated; umbilicus very large; aperture very wide, oblique.

A. ADAMS (Cyclotrochus). Proc. Zool. Soc., 1850.

Hab. Philippines, Japan.

Species 5. (Fig. a, b. Mus. Brit.)

ADEORBIS NUDA. *Ab. testâ subelevatâ, solidâ; spirâ
 conicâ, anfractibus rotundis, distinctis; umbilico
 magno, circumscripto; aperturâ subrotundâ.*

THE NEAT ADEORBIS. Shell a little raised, solid; spire conical, whorls rounded, distinct; umbilicus large, defined; aperture rather round.

A. ADAMS (Cyclotrochus). Proc. Zool. Soc., 1850.

Hab. Philippines.

Species 6. (Fig. a, b. Mus. Adams.)

ADEORBIS DEPRESSA. *Ab. testâ latâ, rariè depressâ,
 levigatâ; spirâ subplanulatâ, anfractibus ru-
 exsertis; umbilico mediovi; aperturâ parvâ, sub-
 ovatâ.*

April, 1874.

THE DEPRESSED ADEORBIS. Shell broad, much depressed, smooth; spire rather flat; whorls scarcely exerted; umbilicus moderate; aperture small subovate.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Mino-Sima, Japan.

Species 7. (Fig. *a, b*, Mus. Brit.)

ADEORBIS PLANORBULA. *Ade. testâ valde depressâ; spirâ fere planorbulâ; anfractibus rotundis, ultimo lato; umbilico maximo, apertura fere rotundâ.*

THE PLANORBULAR ADEORBIS. Shell much depressed; spire nearly planorbular; whorls round, the last broad; umbilicus very large; aperture almost round.

A. ADAMS (Cyclostrema). Proc. Zool. Soc., 1850.

Hab. Philippines.

Species 8. (Mus. Adams.)

ADEORBIS TROCHELA. *Ade. testâ trochiformi, subelevatâ; spirâ conicâ, anfractibus laevi prominentibus, superne declivibus; umbilico parvo, costâ circumscriptâ; apertura subrotundâ.*

THE LITTLE-TOP ADEORBIS. Shell trochiform, rather elevated; spire conical, whorls not prominent, sloped above; umbilicus small, defined by a rib, aperture rather round.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1863.

Hab. Gotto Islands, Japan.

Species 9. (Mus. Brit.)

ADEORBIS ORIBELLA. *Ade. testâ moderatè depressâ; spirâ depresso-conicâ; anfractibus superne subdeclivibus; umbilico maximo, circumscripto; apertura obliquâ, subrotundâ.*

THE SMALL-ORB ADEORBIS. Shell moderately depressed; spire depressed, conical; whorls sloped above; umbilicus very large, defined; aperture oblique, rather round.

A. ADAMS. Ann. and Mag. Hist. Nat., 1861.

Hab. Mino-Sima, Japan.

Species 10. (Fig. *a, b*, Mus. Adams.)

ADEORBIS CARINATA. *Ade. testâ depressâ, spirâ subplanatâ; anfractibus distinctis, rotundatis, ultimo versus suturam gibboso, infra planulato, infra carinato; umbilico magno; apertura obliquè subquadratâ, infra ad marginem externum rostratâ.*

THE ELATED ADEORBIS. Shell depressed, spire rather flattened; whorls distinct, rounded, last gibbous towards the suture, flattened below, beaked at the base; umbilicus large; aperture rather obliquely squared; beaked below at the outer edge.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1863.

Hab. Seto-Fehi, Japan.



12



11



13
a b



14
a b



15
a b



16
a b



17



18
a b



19
a b



20

ADEORBIS.

PLATE II.

Species 11. (Mus. Adams.)

ADOREBIS JAPONICA. *Ade. testâ depressâ, parvâ, luvigatâ, discoidali; semipellucidâ, concentricè obliquè striatâ; spirâ subdiscoidali, anfractibus lente crescentibus, rotundis, umbilico lato, costâ solidâ, marginato.*

THE JAPAN ADOREBIS. Shell depressed, small, smooth, discoidal; semipellucid, concentrically obliquely striated; spire rather discoidal, whorls slowly increasing, rounded, umbilicus wide, bordered with a strong rib.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Goto Islands, Japan.

Species 12. (Mus. Adams.)

ADOREBIS SIKENSIS. *Ade. testâ subdiscoidali, solidâ, opacâ; strâs minutissimâs spirales et concentricâs decussatâ; spirâ subplanulatâ, anfractibus regulariter crescentibus, rotundis; umbilico mollescente, aperturâ obliquè rotundatim ovato.*

THE CHINESE ADOREBIS. Shell rather discoidal, solid, opaque; decussated with very minute spiral and concentric striae; spire rather flat, whorls regularly increasing, rounded; umbilicus moderately large, aperture obliquely rounded oval.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. China.

Species 13. (Mus. Adams.)

ADOREBIS PROMINUA. *Ade. testâ subulaphanâ, nitidâ, strâs concentricâs tenuissimâs sculptâ; spirâ depresso-conicâ; anfractibus rix prominentibus, rapidè crescentibus; umbilico mediovi, submarginato; aperturâ obliquâ.*

THE PROMINENT ADOREBIS. Shell rather transparent, polished, sculptured with very thin concentric striae; spire depressed-conical; whorls scarcely prominent, rapidly increasing; umbilicus

middle-sized, slightly bordered; aperture oblique.

A. ADAMS. Ann. and Mag. of Nat. Hist. 1861.

Hab. Mino-Sima, Japan.

Species 14. (Fig. a, b, Mus. Adams.)

ADOREBIS CLAUSA. *Ade. testâ discoidali, subulaphanâ, tenuissimè concentricè striatâ; spirâ depressâ, anfractibus rix prominentibus, superâ subplanulatis, umbilico partim callo oblecto.*

THE CLOSED ADOREBIS. Shell discoidal, rather transparent, very finely concentrically striated; spire depressed, whorls scarcely prominent, rather flattened above; umbilicus partly covered by callus.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Mino-Sima, Japan.

The umbilicus being partly filled up by a callus, makes it a leading species towards the genus *Tiastoma*, in which the umbilicus is entirely filled.

Species 15. (Fig. a, b, Mus. Adams.)

ADOREBIS SUTURALIS. *Ade. testâ subglobosâ, tenui, semipellucidâ, tenuissimè concentricè striatâ; spirâ subproductâ, anfractibus rapidè crescentibus; suturâ profundâ, aperturâ magna; umbilico parvo.*

THE SUTURED ADOREBIS. Shell subglobose, thin, semipellucid, very finely concentrically striated; spire a little produced, whorls rapidly increased; suture deep, aperture large; umbilicus small.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Tsu-Sima, Japan.

Species 16. (Fig. a, b, Mus. Adams.)

ADOREBIS CORNICULUM. *Ade. testâ globosâ, subulaphanâ, minutissimè striatâ; spirâ parvâ, anfractibus rapidè*

cresecantibus, ultimo magno, rotundo; umbilico angusto, costâ marginatâ; aperturâ magnâ.

THE LITTLE HORN ADEORBIS. Shell globose, a little transparent, very minutely striated; spire small, whorls rapidly increasing, last large, rounded; umbilicus narrow, bordered with a rib; aperture large.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Mino Sima, Japan.

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

ADEORBIS ANGASI. *Ade. testâ discoidali, valdè depressâ, tenui; spirâ parvâ, planulatâ, anfractibus paucis, parvis, rapidè cresecantibus, ultimo expanso, striato, ad suturam crenulatâ, ad peripheriam acutè carinato et conspicuè crenato; umbilico et aperturâ naucimis.*

ANGAS'S ADEORBIS. Shell discoidal, much depressed, thin; spire small, flat, whorls few, small, rapidly increased, last expanded, striated, crenulated at the suture; sharply and conspicuously keeled at the periphery; umbilicus and aperture very large.

A. ADAMS. Proc. Zool. Soc., 1861.

Hab. Australia.

This beautiful little shell was collected by Mr. G. F. Angas.

Species 18. (Mus. Brit.)

ADEORBIS NANCLA. *Ade. testâ depressâ, subdiscoidali; spirâ paulò exsertâ, anfractibus rotundis, lentè cresecantibus; umbilico mediocri, marginato, aperturâ subrotundâ.*

THE LITTLE DWARF ADEORBIS. Shell depressed, rather discoidal; spire a little exerted, whorls rounded, slowly increased; umbilicus moderate, bordered, aperture rather rounded.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Mino-Sima, Japan.

Species 19. (Mus. Adams.)

ADEORBIS SUBANGULATA. *Ade. testâ solidiùsculâ; spirâ paulò exsertâ; anfractibus subangulatis; ultimo anfractu subelevato, propè suturam gibboso, subangulato, infrâ latiùsculo, obscurè angulato; umbilico profundo, angustiusculo, margine acuto; aperturâ subovata, labio externo, supernè sinuatim producto.*

THE SLIGHTLY ANGULAR ADEORBIS. Shell rather solid; spire a little exerted; whorls rather angular; last whorl a little raised, gibbous and obscurely angular near the suture; umbilicus deep, rather narrow, with a sharp edge; aperture subovate, outer lip sinuously produced above.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Gotto Islands, Japan.

Species 20. (Fig. a, b, Mus. Adams.)

ADEORBIS DIAPHANA. *Ade. testâ globosâ, diaphanâ; spirâ parvâ, anfractibus rotundis; ultimo anfractu inflato; umbilico parvo; aperturâ subrotundâ.*

THE TRANSPARENT ADEORBIS. Shell globose, transparent, spire small, whorls round; last whorl inflated; umbilicus small; aperture rather round.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Gotto Islands, Japan.

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

ADEORBIS PATULLIS. *Ade. testâ semipellucidi, depressâ; spirâ paulò productâ, anfractibus obscurè biangulatis, ultimo infrâ planiùsculo; umbilico angustiusculo; aperturâ magnâ, labio columellari rectiùsculo.*

THE ELATE ADEORBIS. Shell semipellucid, depressed, spire a little produced, whorls obscurely biangular, the last rather flattened beneath; umbilicus rather narrow; aperture large, columella lip rather straight.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Mino-Sima, Japan.

Related to *Adeorbis Japonica*, but with more elate spire.

MONOGRAPH
OF THE GENUS
TEINOSTOMA.

— Once hid from those who search the main,
Where thousand elfin shapes abide — *William Collins.*



TEINOSTOMA.

PLATE I.

Genus TEINOSTOMA. A. Adams.

Testa depressa, alba, polita, solida, raris spiraliter striata, regione umbilicali callu oblecto; apertura lateraliter producta, ab axis remota.

Shell depressed, white, polished, solid, rarely spirally striated; umbilical region covered by a callus; aperture laterally produced, distant from the axis.

The difference between this genus and *ADAMSIA* is that while shells of the former are widely umbilicated, those of the latter have the umbilicus filled up by a callus. The mouth also is laterally produced and out of axis. The localities of the few species known are as remote as Mazatlan, Japan, and the Philippines.

Species 1. (Fig. a, b, c, Mus. Brit.)

TEINOSTOMA AMPLIATANS. Testi testis valde depressi, spirae planulati; apertura producta, labio externo subrostrato; callo crasso, rotundato.

THE BOLDING TEINOSTOMA. Shell much depressed, spire flattened; aperture produced, outer lip rather beak'd; callus thick, rounded.

CARPENTER. Cat. Mazatlan Moll., p. 253.

Hab. Mazatlan.

Next to *Teinostoma politum*, this is the most pointed at the outer lip and has the largest callus of any of the species.

Species 2. (Fig. a, b, Mus. Brit.)

TEINOSTOMA CONCENTRICUM. Testi testis depressi, spiraliter tenuiter lineati, superius convexi. umbilico callu minimo oblecto; apertura antice producta, subacuminata.

THE CONCENTRIC TEINOSTOMA. Shell depressed, spirally finely ridged, convex above; umbilicus entirely

hidden by a callus; aperture anteriorly produced, slightly acuminated.

A. ADAMS. Ann. and Mag. Nat. Hist., 1863.

Hab. Takano-Sima, Japan.

The only species covered with spiral striae.

Species 3. (Fig. a, b, Mus. Brit.)

TEINOSTOMA POLITUM. Testi testis valde depressi, polita, superius planulati; ultimo anfractu gibboso, lateraliter producto; apertura producta, ovata, ad suturam columellamque incrassata; labio externo infra medium acute rostrato.

THE POLISHED TEINOSTOMA. Shell much depressed, polished, flattened above; last whorl gibbous, laterally produced; aperture produced, ovate, thickened at the suture and columella; outer lip sharply beak'd below the middle.

A. ADAMS. Proc. Zool. Soc., 1854.

Hab. Philippine Islands.

Species 4. (Fig. a, b, Mus. Brit.)

TEINOSTOMA SUBSTRATIUM. Testi testis minimi, nitenti, prope suturam minutissime striata; callo angusto, circa rimam umbilicalem gyranti; apertura subrotundi; labio interno crasso, fere anfractum paullimum amplectanti.

THE SUBSTRATED TEINOSTOMA. Shell very small, shining, very minutely striated near the suture; callus narrow, coiling round the umbilical rim; aperture nearly round; inner lip thick, nearly enveloping the last whorl.

CARPENTER. Cat. Mazatlan Moll., p. 254.

Hab. Mazatlan.

TEINOSTOMA.—PLATE I.

Species 5. (Fig. a, b, Mus. Brit.)

TEINOSTOMA CARPENTIERI. *Tei. testâ raldè depressâ, spirâ ferè obtectâ; ultimo anfractu planulato, mediò fissuratâ; callo umbilicati rotundo; aperturâ productâ, labio interno suprà anfractum penultimum elevato; labio externo ad medium rostrato.*

CARPENTIER'S TEINOSTOMA. Shell much depressed; spire almost hidden; last whorl flattened, with a medial fissure; umbilical callus rounded; aperture produced, inner lip raised above the penultimate whorl, outer lip beaked in the middle.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Gulf of Pechili.

The suture and the apex of this shell are covered by an enamel, leaving only a little pit where the point should be.

Species 6. (Fig. a, b, Mus. Brit.)

TEINOSTOMA RADIATUM. *Tei. testâ depressâ, orbiculatâ, superne convexiusculâ, infri medium planiusculâ; lineis incrementi conspicuè concentricè liratâ; anfractibus rapidè crescentibus; aperturâ subrotundâ, anticè productâ; labio interno ad suturam incrassato, usque ad apicem elevato; callo subcapato.*

THE RAYED TEINOSTOMA. Shell depressed, orbicular, rather convex above, rather flat below the middle; concentrically ridged with conspicuous lines of growth; aperture rather rounded, produced an-

teriorly; inner lip thickened at the suture, raised as far as the apex; callus somewhat excavated.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1860.

Hab. Kino-O-Sima, Japan.

Species 7. (Fig. 1, a, b, Mus. Brit.)

TEINOSTOMA LUCIDUM. *Tei. testâ orbiculari, depressâ, aperturâ subobliquâ, anticè rotundatâ productâ; callo rotundo, tumido.*

THE LUCID TEINOSTOMA. Shell orbicular, depressed, aperture a little oblique, anteriorly roundly produced; callus rounded, tumid.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1863.

Hab. Japan.

Species 8. (Fig. a, b, Mus. Brit.)

TEINOSTOMA FUSILLUM. *Tei. testâ orbiculari, depressâ, minutissimè striatâ; suturâ impressâ, anfractu ultimo magno, ad peripheriam compresso; labio interno septiformi, recto.*

THE DWARF TEINOSTOMA. Shell orbicular, depressed, very minutely striated; suture impressed; last whorl large, compressed at the circumference; inner lip septiform, straight.

C. B. ADAMS. Conchological Contributions, p. 112.

Teinostoma unonolum, H. and A. Adams.

Teinostoma (calcolini) pusillum, Adams. Genera,

Appendix.

Hab. U. States; Tanabe, Japan.

The straight inner lip of this little species gives it the appearance of a *Neritina*.

MONOGRAPH
OF THE GENUS
BRODERIPIA.

"Your name is great in mouths of wisest censor." *Shel. J. p. 100.*



1^a



1^b



2^a



2^b



2^c



3^a



4^a



5^a

BRODERIPIA.

PLATE I.

Genus BRODERIPIA, Gray.

Molluscan trachelipodum marinum.

Testa marina, patelliformis, depressa, oblonga, non-spiralis; apice postico, incurva; apertura maximo, ovata, intus margaritacea.

Mollusc, trachelipodous, marine.

Shell marine, patelliform, depressed, oblong, nonspiral; apex posterior, incurved; aperture very large, ovate, pearly within.

The late Mr. Broderip described two shells of this small genus, including them in *SUTELLA*. But although the animal is not known, the structure of the shell makes it probable that they belong to the family of the *Stomatellina*, and that they bear the same relation to that family as the *Aargli* do to the *Lymnaeidae*.

Two Pacific, one Philippine, and one other species, are all at present known.

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

BRODERIPIA ROSA. *Bro. testâ parvâ, minutissimè striatâ, ovatâ, depressâ, dorso arcuatâ, lineis flavo-mulicisque rubris subreticulatim pictâ; apice post marginem posticum protracto; intus intus tenuissimâ.*

THE ROSA BRODERIPIA. Shell small, very finely striated, ovate, depressed, back arched, painted network-like with red lines and flames; apex produced beyond the posterior margin, pearl very thin within.

BRODERIP (Scutella). Proc. Zool. Soc., 1834.

Hab. Grimwood's Island, Pacific.

Species 2. (Fig. a, b, Mus. Brit.)

BRODERIPIA CUMINGII. *Bro. testâ subquadratâ, sub-convexâ, depressâ, minute granulatâ, fasciis rubris propè marginem radiatâ; apice propè marginem posticum declivato; margine columellari intus sub-spiriformi.*

CUMING'S BRODERIPIA. Shell subquadrate, subconical, depressed, minutely granular, rayed with red bands towards the margin; apex sloped near the posterior margin; columellar margin rather septiform within.

A. ANIMS. Proc. Zool. Soc., 1850.

Hab. Isl. Capul, Philippines.

The shell from which our figure was originally drawn was unfortunately lost from Mr. Cuming's collection, but a drawing is preserved and an inferior specimen remains.

Species 3. (Fig. a, b, Mus. Brit.)

BRODERIPIA NITIDISSIMA. *Bro. testâ depresso-conicâ, ovatâ, intus pallidè purpurâ, viridè iridescenti, extus fimboso-fasciâ, costis regularibus, crassis radiatâ; margine dentato; apice paulò post mediani.*

THE BRIGHT BRODERIPIA. Shell depressed-conical, ovate, pale purple within, brightly iridescent, smoky-brown without, rayed with regular, thick ribs; margin toothed; apex a little behind the centre.

DESBAYES. Conchyliologie de l'Isle de la Réunion, p. 69.

Hab. Bourbon.

The only species with radiating ribs and correspondingly toothed margin.

Species 4. (Fig. a, b, Mus. Brit.)

BRODERIPIA IRIDESCENTS. *Bro. testâ tenui, ovato-oblongâ, depressâ, intus viridè iridescenti, rubro pallidè reticulatâ; extus pallidè fuscâ rosâ viridè obliquè reticulatâ.*

THE IRIDESCENT BRODERIPIA. Shell thin, ovate-oblong, depressed, brightly iridescent within, reticulated with pale red; pale fulvous without, brightly obliquely reticulated with red.

BRODERIP (Scutella). Proc. Zool. Soc., 1834.

Hab. Grimwood's Island, Pacific.

MONOGRAPH
OF THE GENUS
C U L T E L L U S.

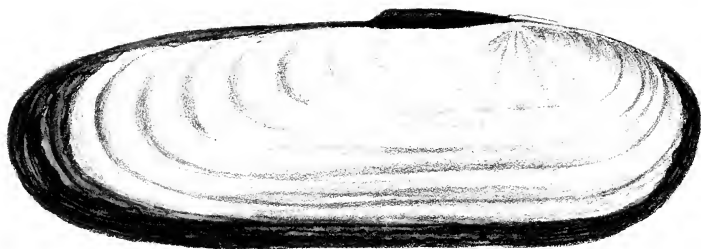
“How full the earth, and sea, and air!
How great Thy love! what constant care
Of all the host is shown.”—*Isaiah.*



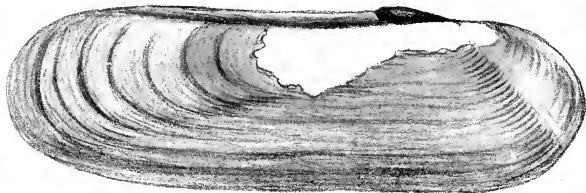
1^a



1^b



2



3

CULTELLUS.

PLATE I.

Genus CULTELLUS, Sowerby.

Testa transverse oblong, bivalve, inequivalve, gaping at each end, non-spirally, with umbones, sometimes a little elevated, sometimes provided with an internal umbo and fossa. Teeth two in one valve, and three in the other. Ligament external, elongated.

Shell transversely oblong, inequivalve, inequivalve, gaping at each end, non-spirally, with umbones, sometimes a little elevated, sometimes provided with an internal umbo and fossa. Teeth two in one valve, and three in the other. Ligament external, elongated.

Syn. Mureta, Cuvier.—Succinea, Muller.—Ligamentum, Cuvier.

Uniting the group represented by *Succinea*, *Cultellus*, and that represented by *Succinea*, the latter having an internal umbo and fossa, in one genus, we have all the *Succinea*, excepting *S. ligamentum*, divided into three genera—viz. *Succinea*, including the razor shells, whether straight or curved, with the beaks terminal; *Cultellus*, including *Succinea*, and the "radiata" group, which, with or without the beaks terminal, having the beaks near one end, or at least nearer than the middle; and *Succinea*, including *Mureta*, *Succinea*, *Novacula* and *Phaella*, having the beaks central or nearly so.

Like true *Succinea*, the species of *Cultellus* are found in the sands of nearly all climates.

Species 1. (MUS. BRIT.)

CULTELLUS LIVIDUS. *Col. testâ elongatâ, ovata, compressâ, lividi-purpureo-ovata, maculis parvis aspersâ, posticâ attenuatâ, subacuminatâ, margine terminali antica parvibus; ligamento brevissimo.*

THE LIVID CULTELLUS. Shell elongated, curved, compressed, livid-purple, sprinkled with brown spots; posteriorly attenuated, subacuminated, anterior terminal margin much raised; ligament short.

DUNKER, Proc. Zool. Soc., 1861.

Cultellus macmoratus, Dunker.
Hab. Isl. Luzon, Philippines.

The small semipellucid shell described as *C. macmoratus*, is evidently the same with *C. lividus* in a young state.

Species 2. (MUS. SOWERBY.)

CULTELLUS LACUS. *Col. testâ margini compressâ, laevigatâ, albâ, reticulatâ, intus subumbonis costâ arcuatâ, etâs epidermidâ crassâ imbutâ; latere antico ante umbones producto, subulatum subacuminatâ; latere postico elongato, ad terminum rotundo; margine centrali recto; ligamento maximo.*

THE MILK-WHITE CULTELLUS. Shell large, compressed, smooth, whitish, rather straight, strengthened with a rib inside, under the umbones, covered with a thick epidermis outside; anterior side produced in front of the umbones, roundly subacuminated; posterior side elongated, rounded at the end; ventral margin straight; ligament very large.

STENGEL.

Cultellus orientalis, Dunker.

Hab. Malacca.

Species 3. (MUS. BRIT.)

CULTELLUS MAXIMUS. *Col. testâ brevi, compressâ, paulo arcuatâ, albâ, epidermidâ fulcâ imbutâ, intus costâ arcuatâ; latere postico brevi, in arcu complanatâ et margine reflexo terminantâ, post arcum concentricè rugatâ; latere postico elongato, arcu dorsali antico arcuato impresso.*

THE VERY LARGE CULTELLUS. Shell thin, compressed, a little curved, white, covered with a yellow epidermis, strengthened inside with a rib; posterior side short, ending in a flattened area and reflected margin, concentrically wrinkled behind the area; posterior side elongated, dorsal area depressed by a curve in the middle.

Gmelin, Linn. Syst. Nat.

Hab. Malacca.

August, 1874.



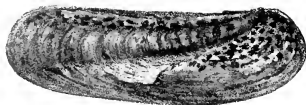
4



5



6



7^a



8



9



7^b

CULTELLUS.

PLATE II.

Species 4. (Mus. Brit.)

CULTELLUS PELLUCIDUS. *Cal. testa parca, tenui, semi-*
translucida, elongata, arcuata, ante umbonem breviter
curvata; area postior paulo elevata; margine dorsali
recto, acutato; margine ventrali atropurpureo strigoso
orbiculi; nuchaibus terminalibus subrotundis.

THE PELLUCID CULTELLUS. Shell small, thin, semi-pellucid, elevated, arched, very short in front of the umbo, post-rior area a little raised; dorsal margin scarcely arched, ventral margin sloped upward on each side; terminal margins rather rounded.

PENNYANT, Zool. Brit., vol. iv. Pl. 46, f. 23

Solen pygmaeus, Lamarck.

Solen minutus, Montagu.

Hab. British coasts.

Species 5. (Mus. Brit.)

CULTELLUS HANLEYI. *Cal. testa elongata, compressa,*
atropurpureo paulo hianti, rectis valis, albibus, anticis
postiorque concentricis rugatis; latera antica brevia,
margine dorsali excavata, atropurpureo terminali sub-
quadrato; lobes postice elongata, margine dorsali
recto, area angustissima, atropurpureo terminali sub-
rotundo.

HANLEY'S CULTELLUS. Shell elongated, compressed, a little gaping at each end, rather straight, whitish, anteriorly and posteriorly concentrically wrinkled; anterior side short, dorsal margin excavated, terminal margin rather square; posterior side elongated, dorsal margin straight, with very narrow area, terminal margin rather rounded.

DUNKER, Proc. Zool. Soc., 1861.

Hab. — ?

Described in the Proceedings of the Zoological Society from a specimen in the late Mr. Cuning's collection without stated locality.

Species 6. (Mus. Brit.)

CULTELLUS POLITUS. *Cal. testa recta, depressa, anticè*
hianti, fusca, epidermide tenui, polita intulata;
umbonibus subterminalibus, margine antico levato,
recto; area postior alba, elongata, margine terminali
subtruncato; area dorsali angusta, recta; margine
ventrali recto.

THE POLISHED CULTELLUS. Shell straight, depressed, anteriorly gaping, brown, covered with a thin polished epidermis; umboes nearly terminal, anterior margin elevated, reflected, posterior area white, elongated; terminal margin subtruncated; dorsal area narrow, straight, ventral margin straight.

DUNKER, Proc. Zool. Soc., 1861.

Hab. Mouths of the river Gambia.

A peculiarly straight looking species, with umboes nearly terminal and edges curiously reflected.

Species 7. (Fig. a, b, Mus. Brit.)

CULTELLUS CUMINGIANUS. *Cal. testè latiuscula, brevius-*
cula, arcuata, fusco-purpurea, sparsim superne
punctata et maculata; umbonibus terminalibus,
margine antico oblique retrorso; margine centrali
atropurpureo orbiculi; margine postice strigoso; margine
dorsali subarcuato et presso.

CUMING'S CULTELLUS. Shell rather broad, short, arched, purple-brown, sparingly dotted and spotted with purple above; umboes terminal, anterior margin obliquely turned backwards; ventral margin sloped upwards at each end; posterior margin obtuse; dorsal margin a little arched and depressed.

DUNKER, Proc. Zool. Soc., 1861.

Cultellus cumingianus, Dunker.

Hab. Isl. Zebu, Philippines.

Short, deep, and square at the ends.

JUNE, 1874.

CULTELLUS.—PLATE II.

Species 8. (Mus. Brit.)

CULTELLUS ATTENUATUS. *Cul. testâ depressâ, tenui, albidâ, epidermide tenuissimo indutâ; latere antico autè umbones breviusculo, elevato, rotundo; latere postico attenuato, longato, ad terminum subacuminato.*

THE ATTENUATED CULTELLUS. Shell depressed, thin, whitish, covered with a very thin epidermis; anterior side rather short in front of the umbones, raised, rounded; posterior side attenuated, elongated, rather acuminate at the end.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Philippines.

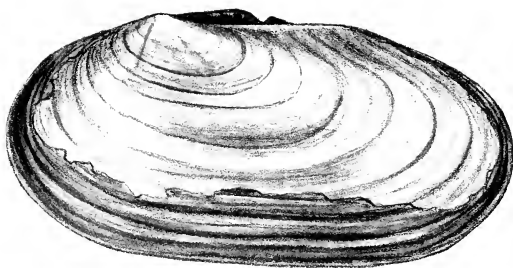
Species 9. (Mus. Brit.)

CULTELLUS SUBELLIPTICUS. *Cul. testâ depressâ, tenui, brevi, ovati, albâ; latere antico breviusculo, angusto; latere postico lato, marginibus dorsali centralique convexis.*

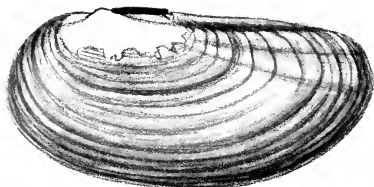
THE SUBELLIPTIC CULTELLUS. Shell depressed, thin, short, ovate, white; anterior side rather short, narrow; posterior side broad, with dorsal and ventral margins convex.

DUNKER. Proc. Zool. Soc., 1861.

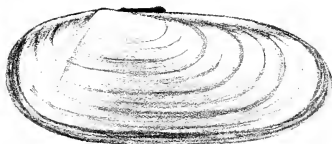
Hab. Singapore. Straits of Malacca.



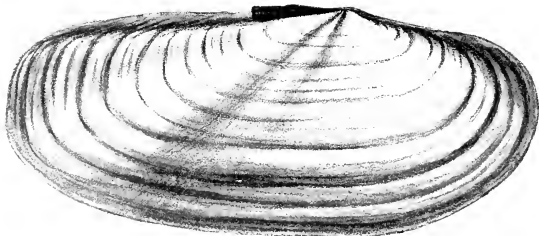
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9



10^a



11

CULTELLUS.

PLATE III.

(Fig. 8.) Species 20. (Mus. Brit.)

CULTELLUS COSTATUS. *Cal. testâ magis, rotundior, obliquâ, prope umbones aurantiâ, purpureo albulatâ, epidermidâ fusco subviridi nitenti inlata, intus infra umbonem nigrâ costatâ; latera antica brevia, subrotundata; latera postica elongata, hirsuta, inflata, marginis dorsalis brevis, sub excavati; cardine marginis, marginis lateralis supra delicti, infra excavatum producto.*

THE RIBBED CULTELLUS. Shell large, ventricose, oblique, orange near the umbones, clouded with purple; covered with a greenish-brown, shining epidermis; with a rib inside under the umbo; anterior side short, rather rounded; posterior side elongated, gaping, inflated, dorsal margin short, slightly excavated; hinge large, lateral margin sloped above, roundly produced below.

NO. American Marine Conchology.

Hab. North America, Cape Krusenstern.

(Fig. 9.) Species 21. (Mus. Brit.)

CULTELLUS MEDIUS. *Cal. testâ subovata, obliquâ ellipticâ, utriusque limbatâ, epidermidâ crassa, albicâ, nitenti inlata; intus costâ validâ infra umbonem utriusque valvâ munitâ, latera antica brevia, semi-ovata; latera postica oblonga, marginis dorsalis et ventralis; marginis terminali subtruncato, marginis ventrali concavo ad terminum sursum declivi.*

THE MEDIUM CULTELLUS. Shell rather compressed, oblong-elliptical, gaping at each end, covered with a thick, greenish, shining epidermis; fortified within by a strong rib under the umbo in each valve; anterior side short, semi-ovate; posterior side oblong, dorsal margin rather straight; terminal margin rather truncated, ventral margin convex, sloped upwards at the end.

GRAY. Zool. Beechey Voy., Pl. 44. f. 2.

Machilis nitida, Gould

Hab. North America.

Species 10. (Mus. Brit.)

CULTELLUS WINTERIANUS. *Cal. testâ oblongâ, subovata, depressâ subarcuato-alatâ, epidermidâ tenui inlata, intus costâ validâ infra umbonem utriusque valvâ munitâ, latera antica brevia, alba, subrotundâ, marginis dorsalis delicti; latera postica subatt. nuda, ad terminum subtruncato, marginis ventrali rectiusculo.*

WINTER'S CULTELLUS. Shell oblong, rather ovate, depressed, bluish-white; covered with a thin epidermis, fortified inside with a strong rib under the umbo in each valve; anterior side short, high, rather rounded, dorsal margin sloped; posterior side a little attenuated, rather acuminate at the end, ventral margin rather straight

DUMMER. Proc. Zool. Soc., 1861.

Hab. Java.

This species has a little of the shape of a DORAN.

Species 11. (Mus. Brit.)

CULTELLUS NUTTALLI. *Cal. testâ magis, ellipticâ, compressâ; albicâ, purpureo ab umbonibus radiatâ; epidermidâ crassa, nitenti inlata, intus costâ validâ munitâ; latera antica breviuscula, subtruncato; latera postica elongata, ad terminum subtruncato.*

NUTTALL'S CULTELLUS. Shell large, elliptic, compressed; whitish, rayed with purple from the umbones, covered with a thick shining epidermis, fortified inside with a strong rib; anterior side rather short, rather acuminate; posterior side elongated, rather truncated at the end.

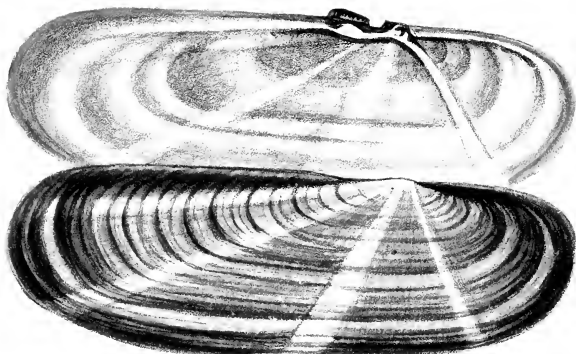
CONRAD. Journ. Acad. Nat. Hist. Phil., v. 7

Hab. North America.

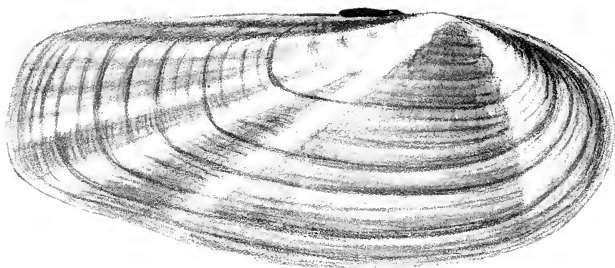
June, 1874.



12



13



14

CULTELLUS.

PLATE IV.

Species 12. (Mus. Brit.)

CULTELLUS GRANDIS. *Cal. testâ magis compressâ, utriusq[ue] limbi, atq[ue] int[er]i[us] purpureo radiatâ; epidermide crassa, subâtrâ, albâ int[er]i[us]; costâ costâ salub[er]i, obliquâ, l[im]b[is] umbonâ utriusq[ue] valvâ innatâ; latere antico brevi, rotundo; medio paulo excavato, margine ventrali concavo; latere postico expanso, protracto, subâtrâ; margine terminali truncato; carinâ dorsal[is] compressâ, et lato, prop[er] umbones excavato.*

THE LARGE CULTELLUS. Shell large, compressed, gaping at both ends, whitish, rayed with purple, covered with a thick, greenish, shining epidermis; fortified inside with a small oblique rib under the umbo in each valve; anterior side short, rounded; middle a little excavated, ventral margin concave; posterior side expanded, produced, rather inflated; terminal margin truncated, dorsal margin compressed, elevated, excavated near the umboes.

GMELIN, Linnæ. Syst. Nat.

Hab. Arctic regions.

Species 13. (Mus. Brit.)

CULTELLUS RADIATUS. *Cal. testâ elongatâ, compressâ, tenui, purpureo lat[er]e radiatâ et concavâ int[er]i[us] fasciatâ, utriusq[ue] limbi, int[er]i[us] costâ albâ, radiâ, obliquâ infra umbonâ utriusq[ue] valvâ innatâ; latere antico breviusculo, prop[er] umbones excavato; latere postico elongato; margine dorsal[is] utriusq[ue] rev[er]susculo, margine ventrali convexo, arcuato, utriusq[ue] rev[er]sus terminalium aequali.*

THE RAYED CULTELLUS. Shell elongated, compressed, thin, broadly rayed and concentrically banded with purple; gaping at each end, fortified inside with a strong, white, oblique rib under the umbo in each valve; anterior side rather short, excavated near the umboes; posterior side elongated; dorsal margin rather straight on both sides, ventral margin convex, arched, sloping upward towards the end on each side.

LINNÆUS, Systema Naturæ.

Hab. Sumatra.

Species 14. (Mus. Brit.)

CULTELLUS TRUNCATUS. *Cal. testâ magis compressâ, latâ, elongatâ, obscure purpureo radiatâ; epidermide crassa subâtrâ innatâ, int[er]i[us] costâ radiâ innatâ; latere antico breviusculo, subâtrâ; latere postico attenuato, rev[er]sus terminalium angustato, ad terminum lat[er]e truncato, margine dorsal[is] compresso.*

THE BEAKED CULTELLUS. Shell large, compressed, broad, elongated, obscurely rayed with purple, covered with a thick greenish epidermis, fortified within by a strong rib; anterior side rather short, subovate; posterior side attenuated, narrowed towards the end, broadly truncated at the end; dorsal margin compressed.

DUNKER, Proc. Zool. Soc., 1861.

Hab. Arctic regions.

It may be seen at once that this species, although bearing a general resemblance to *Cultellus grandis*, differs from it in the posterior side tapering towards the end, instead of being expanded and inflated.

June, 1871.



15



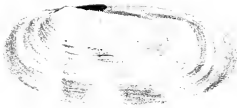
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21

CULTELLUS.

PLATE V.

Species 15. (Fig. a, b, Mus. Sowerby.)

CULTELLUS JAPONICUS. *Cal. testâ tenui, ovata, pallidâ subnigra, purpureo radiatâ et concentricâ fasciatâ, intus costâ albâ radiâ infri subnigra in utroque valvâ minutâ; latere antico brevissimo; latere postico magis producto, propè marginem dorsalem compresso, sulcato; margine centrali convexo, eis medio contracto.*

THE JAPAN CULTELLUS. Shell thin, ovate, pale brownish, rayed and concentrically banded with purple, strengthened within by a strong white rib under the umbo in each valve; anterior side rather short; posterior side more produced, compressed near the dorsal margin, with a groove; ventral margin convex, hardly contracted in the middle.

DUNNELL Proc. Zool. Soc., 1861

Siliqua pulcher, Dunker.

Hab. Eastern seas.

The specimens of Mr. Dunker's *Siliqua pulcher*, seem to me to represent the young state of his *S. Japonica*. It is longer in form, but it has the same groove concurrent with the dorsal margin.

Species 16. (Mus. Brit.)

CULTELLUS ALBIDUS. *Cal. testâ parvâ, subellipticâ, albâ, semipellucidâ; latere antico brevi; latere postico oblongo, margine dorsali convexo; margine centrali medio eis contracto.*

THE WHITISH CULTELLUS. Shell small, subelliptic, white, semipellucid; anterior side short; posterior side oblong, dorsal margin convex; ventral margin scarcely contracted.

DUNNELL — ?

Hab. Catuanan, Philippines.

Species 17. (Mus. Brit.)

CULTELLUS GRAYANUS. *Cal. testâ tenui, elongatâ, epidermide tenuissimo involutâ, costâ intus minutâ, obscurâ purpureo radiatâ; latere antico brevi; latere postico producto, margine dorsali elevato, compresso.*

GRAY'S CULTELLUS. Shell thin, elongated, covered with a very thin epidermis, strengthened with a rib inside, rayed with dull purple, anterior side short; posterior side produced, dorsal margin elevated, compressed.

DUNNELL Proc. Zool. Soc., 1861.

Hab. Ceylon.

Species 18. (Mus. Brit.)

CULTELLUS SUBSULCATUS. *Cal. testâ ellipticâ, tenui, obscurâ purpureo fasciatâ; intus costâ solidâ minutâ; latere antico brevi, rotundo; latere postico obliquo, elongato, propè marginem dorsalem levè sulcato; margine centrali convexo.*

THE SLIGHTLY-GROOVED CULTELLUS. Shell elliptic, thin, banded with dull purple; strengthened within by a solid rib; anterior side short, rounded; posterior side oblique, elongated, slightly grooved near the dorsal margin; ventral margin convex.

SOWERBY.

Hab. — ?

This shell is named in the British Museum collection *S. costatus* var., but it is unlike the larger representatives of that species. It has the same peculiar groove-like depression parallel with the dorsal margin that distinguishes *C. Japonica*, but it is much more inequilateral.

June, 1874.

CULTELLUS.—PLATE V.

Species 19. (Mus. Brit.)

CULTELLUS BELCHERI. *Cal. testis elongati, compressa, subconiciformi, pallide purpureo radiata, epidermide subcitrilli-fusca induta; intus costis validis iniri umbonem in utraque valva manibus; latere antico brevissimo; latere postico attenuato, acclivi.*

BELCHER'S CULTELLUS. Shell elongated, compressed; a little wedge-shaped, rayed with pale purple, covered with a greenish-brown epidermis;

fortified inside with a strong rib under the umbo in each valve; anterior side very short; posterior side attenuated, sloped.

GRAY. ———? MS. in Brit. Mus.

Hab. ———?

Fig. 10. *b.*

CULTELLUS WINTLEIANUS, *Dunker*, var. Species 10, Pl. III.



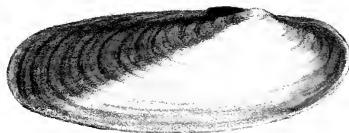
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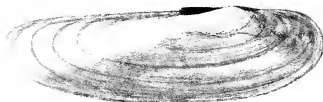
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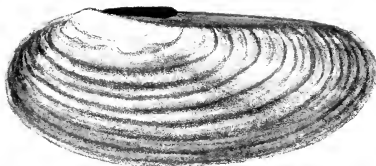
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25



26



27

CUTELLUS.

PLATE VI.

Species 20. (Mus. Brit.)

CUTELLUS OVALIS. See Plate III, Fig. 8.

Species 21. (Fig. 9, b, Mus. Brit.)

CUTELLUS MEDIUS, var. See Plate III, Fig. 9.

Species 22. (Mus. Brit.)

CUTELLUS VIRENS. *Col. testâ parvâ, subimpunctâ, oblongâ, testâ et arcuatâ; laterâ sub a brevâ, rotundâ; marginâ ventrali et posticâ convexâ.*

THE GLASSY CUTELLUS. Shell small, subapicoid, oblong, very slightly arched; anterior side short, rounded; ventral margin slightly convex.

BOISEY, MS. Brit. Mus.

Hab. Singapore.

This little glassy species somewhat resembles the British *C. peltoides*.

Species 23. (Fig. 10, b.)

CUTELLUS CILIATUS. *Col. testâ arcuata, arcuatâ, post-rostris levî, antero-laterâ attenuatâ, terminis utrinquâ acclivibus; pallidâ, spâ sub nigrâ, purpurâ aspersâ; umbonâs, fere terminalibus.*

THE HILLY COILS CUTELLUS. Shell semicircular-shaped, arched, broad just the middle, attenuated before the middle, sloping upwards at both ends; pale, sprinkled sparingly with purple spots, umbones almost terminal.

LINNEUS (Solen). Syst. Nature.

Cutellus Australis, Dunder.

Hab. Port Essington, Australia.

In *Cutellus lividus* the greatest breadth is before the middle; in the present, which is the typical species, the greatest width is behind the middle.

Species 24. (Mus. Brit.)

CUTELLUS OVALIS. *Col. testâ elongato-ovata, subventricosâ, antero-subteriali, utrinquâ rotundâ terminis gibbâscenti; laterâ antice productâ, subamminatâ; laterâ posticâ oblongâ, obtusâ subtruncatâ; marginâ ventrali convexâ; marginâ dorsali paulo declivi.*

THE OVAL CUTELLUS. Shell elongate, oval, subventricose, greenish gold, greyish on both sides towards the ends; anterior side produced, rather acuminate; posterior side oblong, obtusely truncated; ventral margin convex; dorsal margin a little sloped.

DUNKER — ? MS. Brit. Mus.

Hab. Singapore.

Larger and more ovate than *Cutellus medius*.

Species 25. (Mus. Sowerby.)

CUTELLUS SCALPELLUM. *Col. testâ elongatâ, tenui, apiciventrile nitenti, subciliatâ, involutâ; laterâ antice productâ, rotundâ; laterâ posticâ longatâ, attenuatâ, acuminatâ; marginâ dorsali rectâ; marginâ ventrali convexâ, utrinquâ declivi.*

THE SCALPEL CUTELLUS. Shell elongated, covered with a thin, shining, greenish epidermis; anterior side produced, rounded; posterior side elongated, attenuated, acuminate; dorsal margin straight; ventral margin convex, sloped upwards at each end.

SOWERBY.

Hab. Red Sea.

Of the general form and aspect of *Cutellus cutellus*, but with the anterior end produced as in *Cutellus ovatus*.

Species 26. (Mus. Sowerby.)

CUTELLUS LUCIDUS. *Col. testâ compressâ, ovatâ, tenui, epidermide nitenti, florido-subteriali involutâ, fasciis purpurâs latis radiatâ; ad terminum posticum subtruncatâ; marginâ dorsali post-umbonâs coarctâ, orâ submarginali compressâ.*

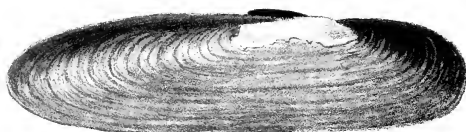
THE LUCID CUTELLUS. Shell compressed, ovate, thin, covered with a shining, thin, yellow-greenish epidermis, rayed with broad purple bands; partly truncated at the hinder extremity; dorsal margin convex behind the umbones, with a submarginal compressed area.

CONRAD — ? MS. Brit. Mus.

Hab. — ?



7



27



28^a



28^b



29



30

CULTELLUS.

PLATE VII

(Fig. 7. — Mus. Brit.)

CULTELLUS CUMINGIANUS, N. SP. — See Plate II.

Species 27. (Mus. Brit.)

CULTELLUS OLIVACEUS. *Cal. testâ elongatâ, subcompressâ, epidermidâ fuscâ olivaceâ, medio levigatâ, versus terminalem rugatâ et levigatâ; latere antico oblongo, ad terminalem contracto; latere postico subrecto; ad terminalem subcurvato; margine ventrali rectiusculo; margine dorsali postico acutius subdilatâ.*

THE OLIVACEOUS CULTELLUS. Shell elongated, sub-compressed, covered with a yellowish-brown epidermis, smooth in the middle, wrinkled at each end; anterior side oblong, rounded at the end; posterior side rather attenuated, rather acuminate at the end; ventral margin rather straight; posterior dorsal margin sloped downwards in a curve.

MEYER — ? MS. in Brit. Mus.

Hab. — ?

Species 28. (Fig. a, b. Mus. Brit.)

CULTELLUS JAVANICUS. *Cal. testâ tenui, compressâ, attenuatâ; epidermidâ tenui, pallidâ olivaceâ indatâ; latere antico producto, breviusculo, rugato; latere postico obliquo, arcuato, ad terminalem acclivi, acuminato; margine ventrali multo subcontracto.*

THE JAVA CULTELLUS. Shell thin, compressed, attenuated; covered with a thin, pale-olive epidermis; anterior side produced, rather short, wrinkled; posterior side oblique, curved, sloped upwards at the end, acuminate; ventral margin a little contracted in the middle.

LAMARCK. Anim. s. Vert.

Phorell: Javanica, Adams.

Hab. Java.

Species 29. (Mus. Brit.)

CULTELLUS ACUMINATUS. *Cal. testâ elongatâ, subattenuatâ, tenuiusculâ, albâ, epidermidâ tenui, olivaceâ; margine dorsali rectiusculo, margine ventrali antico et post-mediano convexo, medio contracto, versus terminalem posticum acclivi, ad terminalem elevato, acuminato; latere antico breviusculo.*

THE ACUMINATED CULTELLUS. Shell elongated, somewhat attenuated, rather thin, whitish, epidermis thin, olivaceous; dorsal margin rather straight, ventral margin convex before and behind the middle, contracted in the middle, sloped upwards towards the posterior end, raised at the end, acuminate; anterior side rather short.

HANLEY (Solen). Proc. Zool. Soc., 1812.

Hab. India.

This species is deeper than *Cultellus Javanicus*, and more acuminate at the end.

Species 30. (Mus. Brit.)

CULTELLUS TENUIS. *Cal. testâ elongatâ, valdè compressâ, tenui, rectiusculâ, epidermidâ subareâ, ad arcum posticum frè cavâ et indatâ; latere antico brevissimo, margine terminali elevato, subreflexo; latere postico elongato, subexpanso, ad terminalem truncato.*

THE THIN CULTELLUS. Shell elongated, much compressed, thin, rather straight, covered with a rather golden epidermis, almost disappearing at the posterior area; anterior side very short, with terminal margin raised and partly reflected; posterior side elongated, rather expanded, truncated at the end.

GRAY in Griffith's Cuvier, Tab. 31, fig. 4.

Hab. Africa.

A singularly shaped shell with a peculiar turn outwards of its elevated anterior termination.

CULTELLUS.

	Plate	Species.		Plate	Species
<i>albidus</i> , <i>Dunker</i>	V.	16		III.	21
<i>acuminatus</i> , <i>Hanley</i> , <i>Boissy</i>	VII.	29		(and Pl. VI., fig 9 b.)	
<i>attenuatus</i> , <i>Dunker</i>	II.	8		II.	4
<i>Australis</i> — ?	VI.	23		III.	11
<i>Belcheri</i> , <i>Gray</i>	V.	19		VII.	27
<i>concinus</i> , <i>Dunker</i>	II.	7		I.	2
<i>costatus</i> , <i>Soy</i>	III.	20		VI.	24
<i>cultellus</i> , <i>Linnaeus</i>	VI.	23		II.	4
<i>Cumingianus</i> , <i>Dunker</i>	II.	7		II.	6
<i>grandis</i> , <i>Guelin</i>	IV.	12		II.	4
<i>Grayanus</i> , <i>Dunker</i>	V.	17		IV.	13
<i>Hanleyi</i> , <i>Dunker</i>	II.	5		IV.	14
<i>Japonicus</i> , <i>Dunker</i>	V.	15		VI.	25
<i>Javanicus</i> , <i>Lamarck</i>	VII.	28		V.	15
<i>laetens</i> , <i>Spengler</i>	I.	2		II.	9
<i>lividus</i> , <i>Dunker</i>	I.	1		V.	18
<i>lucidus</i> , <i>Coarad</i>	VI.	26		VII.	30
<i>Marmoratus</i> , <i>Dunker</i>	I.	1		VI.	22
<i>maximus</i> , <i>Guelin</i>	I.	3		III. V.	10
				III.	21
				(and Pl. VI., fig 9 b.)	
				II.	4
				III.	11
				VII.	27
				I.	2
				VI.	24
				II.	4
				II.	6
				II.	4
				IV.	13
				IV.	14
				VI.	25
				V.	15
				II.	9
				V.	18
				VII.	30
				VI.	22
				III. V.	10

MONOGRAPH

OF THE GENUS

CYCLOSTREMA.

“who are met with wondrous-wise respect,
“to all with admirable beauty deckt.”—*Spenser*.



2



1^a



4^a



1^b



11



CYCLOSTREMA.

PLATE I.

Genus CYCLOSTREMA, *Margott.*

Testa orbiculata, depressa, latè umbilicata; spiræ parvæ, anfractibus spirâliter et concentricè, plus minusve levatè et subulatè. Aperturâ integrâ, laevi nervatâ, marginè acutè.

Shell orbicular, depressed, broadly umbilicated; spire small, whorls spirally and concentrically ridged or sulcated. Aperture entire, not pearly, margin acute.

Some of the smaller species of *Dolphinula* resemble these little shells, which, with *Adeorbis* and the subgenera of both make a natural group. The difference between the two genera is that *Cyclostrema* has more external sculpture and a wide umbilicus, which in *Adeorbis* is wanting. Of the twenty three species included in this genus and its subgenera *Darwinia*, *Tubicola*, *Microtheca*, and *Morchia*, a dozen were found by Mr. Arthur Adams on the coasts of Japan, half-a-dozen more were collected by the late Mr. Cuming amongst the Philippines, leaving five or six for such widely distant localities as Britain and Australia, China and California, &c.

Species 1. (Fig. *a, b*, Mus. Brit.)

CYCLOSTREMA CINGULIFERA. *Cyc. testâ orbiculari, depressâ, anfractibus rapidè crescentibus, ultimo carinis sex acutissimis, prominentibus cinctâ; umbilicò lato, plano; aperturâ rotundâ, marginè externo superiori linguatâ.*

THE BELTED CYCLOSTREMA. Shell orbicular, depressed, whorls quickly increasing, the last encircled with six prominent, very sharp ribs; umbilicus wide, flat; aperture rounded, outer margin fluted.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Isl. of Negroes, Philippines. Japan.

Species 2. (Mus. Brit.)

CYCLOSTREMA EXCAVATA. *Cyc. testâ complanâtâ, minutissimè spirâliter striatâ; anfractibus rapidè crescentibus, ultimo anfractu infri angulato, complanato; umbilicò lato; aperturâ obliquâ, marginè tenui.*

THE EXCAVATED CYCLOSTREMA. Shell flattened, very minutely spirally striated; whorls rapidly increasing, last whorl angular, flattened beneath; umbilicus broad; aperture oblique, margin thin.

CARPENTER. Proc. Zool. Soc., 1850.

Hab. China Seas.

Species 3. (Mus. Brit.)

CYCLOSTREMA SULCATA. *Cyc. testâ orbiculari, depressâ, regulariter spirâliter subulatâ; spirâ raldè depressâ; ultimo anfractu lato; umbilicò latissimo, sulcato; aperturâ fere rotundâ.*

THE SULCATED CYCLOSTREMA. Shell orbicular, depressed, regularly spirally sulcated; spire much depressed; last whorl broad; umbilicus very wide, grooved; aperture nearly round.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Philippines. Japan.

Species 4. (Fig. *a, b*, Mus. Crosse.)

CYCLOSTREMA VERRAUXI. *Cyc. testâ orbiculatâ, depressâ, spirâ parvâ, anfractibus subquadratis, rapidè crescentibus; ultimo anfractu tricarinato, carinâ medianâ prominenti, ad aperturam in lobam linguiformem productâ; umbilicò modicè, planato; aperturâ magis, lobis laterâ infri angulata, medio linguatâ productâ.*

VERRAUX'S CYCLOSTREMA. Shell orbicular, depressed, spire small, whorls rather square, rapidly

CYCLOSTREMA.—PLATE I.

increasing; last whorl three-keeled; middle keel prominent, produced at the aperture into a tongue-shaped lobe; umbilicus middle-sized, flattened; aperture large, outer lip angular below, with tongue-shaped projection in the middle.

FISCHER (Adeorbis). Journ. de Conch., pl. 10, f. 13.

Hab. California.

Species 5. (Mus. Adams.)

CYCLOSTREMA ANAGLYPTA. *Cyc. testâ trochiformi, solidâ; spirâ exsertâ; ultimo anfractu carinâ moniliformibus tribus cincto, umbilico lato, planato; aperturâ rotundâ, labio externo crotis crenulato.*

THE CHASED CYCLOSTREMA. Shell trochiform, solid; spire exserted; last whorl encircled with three beaded keels, umbilicus broad, flattened; aperture rounded, outer lip crenulated outside.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1863.

Hab. Seto-Uchi, Japan.

Species 6. (Fig. a, b, Mus. Brit.)

CYCLOSTREMA CANCELLATA. *Cyc. testâ sublenticulari, depressâ; spirâ planulatâ; ultimo anfractu magno,*

medio carinato, suprâ infrâque carinam costis validis concentricis et liris interstitialibus spiralibus cancellatâ; aperturâ magnâ; umbilico mediocri.

THE CANCELLATED CYCLOSTREMA. Shell sublenticular, depressed, spire flattened; last whorl large, keeled in the middle, cancellated above and below the keel with strong concentric ribs and interstitial spiral ridges; aperture large; umbilicus middle-sized.

MARYATT. Trans. Linn. Soc., 1818.

Hab. West Indies. Philippines.

Species 7. (Fig. a, b, Mus. Adams.)

CYCLOSTREMA BIPOCCATA. *Cyc. testâ orbiculato-depressâ; spirâ planulatâ; ultimo anfractu depresso, acutè bicarinato, carinâ inferiori magis prominenti; aperturâ subrotundâ; labio externo bilobato; umbilico parvisculo.*

THE TWO-RIDGED CYCLOSTREMA. Shell orbicularly depressed; spire flattened; last whorl depressed, with two sharp keels, the lower keel more prominent; aperture rather rounded; outer lip two-lobed; umbilicus rather small.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1863.

Hab. Seto-Uchi, Japan.



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CYCLOSTREMA.

PLATE II.

Species 8. (Mus. Crosse.)

CYCLOSTREMA SHIRAYAMI. *Cyc. testâ subdepressâ; spirâ subcylindricâ, anfractibus propè suturam excavatis; convexâ, obliquè lobata cæcitatebus ornatis, superioribus acuminatis.*

SHIRAYAMI'S CYCLOSTREMA. Shell subdepressed; spiral rather flattened, whorls excavated near the suture; concentrically obliquely ornamented with extant laminae, acuminated above.

FISCHER, Journ. de Conch., pl. 10, f. 10.
Hab. Guadeloup.

Species 9. (Mus. Brit.)

CYCLOSTREMA MORGAN. *Cyc. testâ depressâ, convexâ, spirâ parvâ, depressâ; anfractibus concentricè rugatis, concentricè lobatis, cæcitatebus nodulatis, medio magis prominente; apertura parvâ, rotundâ; marginem integro, crasso, etc. utat; umbilicus parvus.*

THE SHINING CYCLOSTREMA. Shell depressed, thick; spiral small, depressed; whorls concentrically three-keeled, keels noduliferous, the middle one more prominent; aperture small, round; margin entire, thick, crenulated; umbilicus small.

A. ADAMS, Proc. Zool. Soc., 1850.

Cyclostrema pulchella, Dunker.

Cyclostrema modesta, Gould.

Hab. Port Lincoln, Japan.

Species 10. (Mus. Adams.)

CYCLOSTREMA AMMONOCEAS. *Cyc. testâ planorbiculari, anfractibus depressâ, convexâ concentricè crassiusculis acutis, inter costas tenuissimè striatis; ultimo anfracta propè suturam et circa umbilicem planato; umbilico mediocri; apertura magna; labio externo tenui.*

THE AMMONOCEAS CYCLOSTREMA. Shell planorbicular, whorls depressed, ornamented with rather thick concentric ribs, finely striated between the ribs; last whorl flattened near the suture and round the umbilicus; umbilicus middle-sized; aperture large; outer lip thin.

A. ADAMS, Ann. and Mag. of Nat. Hist., 1863.
Hab. Japan.

Species 11. (Fig. a, b, Mus. Brit.)

CYCLOSTREMA LEVINS. *Cyc. testâ majusculâ, subdepressâ, lobatâ, spirâ parvâ elevata, anfractibus convexis; ultimo anfracta cæcitate subdistansibus cincto; umbilicus magno, costâ marginato, planato.*

THE SMOOTH CYCLOSTREMA. Shell rather large, rather depressed, smooth, spiral a little elevated, whorls keeled; last whorl encircled with rather distant keels; umbilicus large, bordered with a rib, flat.

KUMBEK (Delphinula.) Spec. Gen., p. 12, pl. 4, f. 6.
Delphinula nivea, Reeve.

Cyclostrema distincta, Gould.

Hab. Port Lincoln, Australia. Japan.

Species 12. (Fig. a, b, Mus. Brit.)

CYCLOSTREMA ANGULATA. *Cyc. testâ majusculâ, depressâ; anfractibus latis; ultimo anfracta magno, medio angulato, supra angulum spiralicè costellatâ, infra medium planato, circa umbilicem carinato; umbilico lato, planato; apertura magno, margine externo angulato.*

THE ANGULAR CYCLOSTREMA. Shell rather large, depressed; whorls broad; last whorl large, angular in the middle, spirally ribbed above the angle; flattened below the middle, keeled round the umbilicus; umbilicus broad, flattened; aperture large, outer margin angular.

A. ADAMS, Proc. Zool. Soc., 1871.

Hab. Isl. Zebu, Philippines.

CYCLOSTREMA.—PLATE II.

Species 13. (Mus. Brit.)

CYCLOSTREMA REUVIANA. *Cyc. testâ mijusculâ, concentricè regulariter rugatâ; anfractibus depressis, costis multijugis, conspicuis cinctâ; umbilico medio, intus plano; apertura subobliquâ.*

REUV'S CYCLOSTREMA. Shell rather large, concentrically regularly wrinkled; whorls depressed, encircled with beaded conspicuous ribs; umbilicus middle-sized, flat within; aperture rather oblique.

HINDS. (Delphinula.) Voyage of the Sulphur, p. 52, pl. 16, f. 17.

Hab. Straits of Malacca.

Species 14. (Mus. Crosse.)

CYCLOSTREMA BEANI. *Cyc. testâ depressâ, spirâ planiorbulâ; ultimo anfractu paulô superi medium carinato; superâ carinâ spirâliter striatâ; infriâ medium planatâ; circa umbilicum angulatâ; umbilico intus plano; apertura expansâ; labio externo superiè crenulato, infriâ in processum acutè angulatum producto.*

BEAN'S CYCLOSTREMA. Shell depressed, spire planorbular; last whorl keeled a little above the middle; spirally striated above the keel; flattened below; angular round the umbilicus; umbilicus flat within; aperture expanded; outer lip crenulated

above, produced into an acutely angular process below.

FISCHER. (Adeorbis.) Journ. de Conch.

Hab. Guadeloupe.

Species 15. (Mus. Brit.)

CYCLOSTREMA FORNATA. *Cyc. testâ depresso-subglobosâ; spirâ subclavatâ, anfractibus levè crescentibus, rotundis, spicaliter scro-costatis; apertura subrotundâ; umbilico parvo.*

THE ENGINE-TURNED CYCLOSTREMA. Shell depressed, subglobose; spire slightly elevated, whorls slowly increasing, round, spirally six-ribbed; aperture rather rounded; umbilicus small.

ARTHUR ADAMS. Sowerby's Thesaurus, Cyclostremia.

Species 10, f. 13.

Hab. Japan.

Species 16. (Mus. Brit.)

CYCLOSTREMA CINGULATA. *Cyc. testâ valdè depressâ, carinis acutis propè suturam unâ, infriâ medium duabus cinctâ; apertura ovata, triangulatâ; umbilico ovato, plano.*

THE ENCIRCLED CYCLOSTREMA. Shell much depressed, encircled with one sharp keel near the suture and two below the middle; aperture large, triangular; umbilicus large, flat.

DUNKER. Mollusca of Japan.

Hab. Japan.



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17^a



18^a



17^b



15^b



18^b



17^c



15^c



18^c



17^d

CYCLOSTREMA.

PLATE III.

Species 18. (Fig. a, b, Mus. Brit.)

CYCLOSTREMA *obliqua*. *Cop. testâ obliquâ, ovata, compressâ, supra, ad laterâ compressâ; spirâ parâ, ultimo anfractu supra, inângulo angustato, medio planolato, umbilico lato; aperturâ obliquâ ovata.*

THE *obliqua* CYCLOSTREMA. Shell obliquely ovate, depressed above, compressed at the sides; spire parâ, last whorl angular above and below, flattened in the middle; umbilicus very large; aperture large, obliquely ovate.

A. Adams. *Proc. Zool. Acclimat. Soc. Lond.* p. 14.
Subgenus *obliqua*, Adams.
Species *obliqua*, Adams.
Hab. Philippines.

The shell is very smooth, and the whorls being equal in size, the aperture is a little square.

Species 19. (Fig. a, b, Mus. Brit.)

CYCLOSTREMA *ovoides*. *Cop. testâ ovata, compressâ, supra, ad laterâ compressâ; spirâ parâ, ultimo anfractu supra, inângulo angustato, medio planolato, umbilico lato; aperturâ obliquâ ovata.*

THE *SNOWY* CYCLOSTREMA. Shell obliquely semiglobose, smooth, convex above, a little flattened below, spire a little raised, whorls rapidly increasing; umbilicus very large; aperture large, obliquely ovate.

CHEMnitz. (Turbo.) *Conch. X.*, pl. 165, f. 15, 87, 88.
Dalphinula nivea, Philippi.
Tubicola nivea, A. Adams.
Hab. Japan.

This is the largest of the three species, resembling the others *obliqua*.

Species 19. (Fig. a, b, Mus. Brit.)

CYCLOSTREMA *ovoides*. *Cop. testâ obliquâ, ovata, compressâ, supra, ad laterâ compressâ; spirâ parâ, ultimo anfractu supra, inângulo angustato, medio planolato, umbilico lato; aperturâ obliquâ ovata.*

THE *ovoides* CYCLOSTREMA. Shell obliquely ovate, depressed above, compressed at the sides; spire parâ, last whorl angular above and below, flattened in the middle; umbilicus wide, aperture obliquely ovate.

A. Adams. *Ann. and Mag. of Nat. Hist.*, 1860; *Proc. Zool. Soc.*, 1863.
Hab. Japan.

Species 20. (Fig. a, b, Mus. Brit.)

CYCLOSTREMA *cycloides*. *Cop. testâ planorbiali, levigatâ, valde depressâ; spirâ planâ; ultimo anfractu spirâ crassâ, band contigua; umbilico nullo, rotâ plano; aperturâ magis, subrotunda, spirâ inférieure obscure angulata.*

THE *LITTLE WHITE* CYCLOSTREMA. Shell planorbular, smooth, much depressed; spire flat; last whorl rapidly increasing, not contiguous; umbilicus large, flat within; aperture large, rather rounded, obscurely angular above and below.

A. Adams. *Sowerby's Thesaurus. Species (Darwinia) 2.* fig. 35, 36.
Hab. Japan.

A second species of *Darwinia* having, like Sp. 17, a planorbular coil and slightly disconnected whorls.

CYCLOSTREMA.—PLATE III.

Species 21. (Fig. *a, b*, Mus. Brit.)

CYCLOSTREMA CORNUELLA. *Cyc. testâ minutâ, globosâ; spiri elevatâ; anfractibus paucis, rotundis; ultimo anfractu magno; umbilico lato; apertura rotundâ.*

THE LITTLE HORN CYCLOSTREMA. Shell minute, globose; spire raised; whorls few, rounded; last whorl large; umbilicus wide; aperture rounded.

A. ADAMS. (Skenea.) Ann. and Mag. of Nat. Hist., 1860.
Tubiola cornuella, A. Adams, 1863.

Hab. Japan.

Species 22. (Fig. *a, b*, Mus. Hanley.)

CYCLOSTREMA DIVISA. *Cyc. testâ turbinatâ, spiri elevatâ, apice obtuso; anfractibus tribus, rotundis; ultimo anfractu obliquè declivi, a penultimo separato; apertura obliquè ovatâ.*

THE DIVIDED CYCLOSTREMA. Shell turbinated, spire elevated, apex obtuse; whorls three, rounded; last whorl obliquely sloped downwards, separated from the penultimate; aperture obliquely ovate.

J. ADAMS. (Turbo.) Forbes and Hanley's British Mollusca.

Helix serpuloides, Montagu.

Hab. British Seas.

Species 23. (Mus. Adams.)

CYCLOSTREMA CRENULIFERA. *Cyc. testâ crassâ, globosâ, latè umbilicatâ, longitudinaliter plicato-rugatâ; suturâ canaliculatâ; anfractibus ad suturam crenulatis; apertura subrotundâ; labio externo incrassato, arcuato; umbilico ad marginem crenato.*

THE CRENULATED CYCLOSTREMA. Shell thick, globose, broadly umbilicated, longitudinally wrinkled in plaits; suture canaliculated; whorls crenulated at the suture; aperture rather rounded; outer lip thickened, curved; umbilicus crenated at the margin.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1863

Isuda crenulifera, A. Adams.

Hab. Japan.

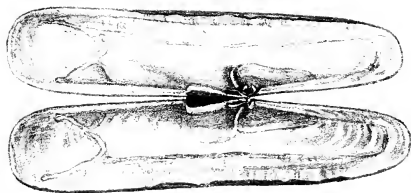
MONOGRAPH

OF THE GENUS

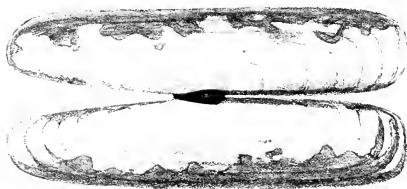
P H A R U S.

— 1852 —

* K. 27. 100 in the second volume printed by G. A. L. — 1846. 1850.



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12

MONOGRAPH
OF THE GENUS
MEGASPERA.

"All hymn Thy glory, Lord, aright,
All worship and praise"—*K&B*.



MEGASPIRA.

PLATE I.

Genus MEGASPIRA, *Lox.*

Megaspira *Lox.* *Proc. Zool. Acclimat. Soc. London*, vol. 1, p. 10, 1842. Type, *M. spiralis* *Lox.*

Shell very small, cylindrical, very slowly spirally increasing, aperture sub-quadrate, columella single-plaited, last whorl with a single plait at the inner lip.

The genus *Megaspira* is distinguished by the singularly small size of the shells.

Species 1. — *M. spiralis* *Lox.*

Megaspira spiralis *Lox.* *Proc. Zool. Acclimat. Soc. London*, vol. 1, p. 10, 1842. Type, *M. spiralis* *Lox.*

Thinly conical, umbilicated, of ruse at the apex, then a little inflated,

afterwards rather contracted, a little above the middle and below very slowly increasing, whorls twenty-two, longitudinally striped with interrupted brown, finely and closely ribbed, columella short, thickened at the last whorl, three-plaited; a suture anteriorly sub-quadrate.

Size, Shell of height

1/2 line.

Fig. 1. 2. (Fig. 1. 5. *M. spiralis* *Lox.*)

Megaspira spiralis *Lox.* *Proc. Zool. Acclimat. Soc. London*, vol. 1, p. 10, 1842. Type, *M. spiralis* *Lox.*

Thinly conical, umbilicated, of ruse at the apex, then a little inflated, afterwards rather contracted, a little above the middle and below very slowly increasing, whorls twenty-two, longitudinally striped with interrupted brown, finely and closely ribbed, columella short, thickened at the last whorl, three-plaited; a suture anteriorly sub-quadrate.

Size, Shell of height

1/2 line.

More narrow and cylindrical than *M. spiralis* *Lox.*, with only one plait at the columella. The whorls are also more finely striated.

MONOGRAPH
OF THE GENUS
CHILINA.

“I suppose he never felt it beyond thought,
And still we praise some poet that Time hath wrought.”—*Compo.*



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CHILINA.

PLATE I.

Genus CHILINA. Gray.

Testa fluviatilis, tenuis, ovata, ventricosa, epidermide olivaceo induta, plurimque fuscis maculisque picta; apertura oblonga; columella incrassata, pluminosae plicata; labio externo acuto.

Shell fluviatile, thin, ovate, ventricose, covered with an olive epidermis, generally painted with bands and spots; aperture oblong; columella thickened, more or less plicated; outer lip sharp.

Sp. Dombeyana. Orbigny. *Idu, Lea, Patagonophila,* Swainson.

Although some species of *Limnaea* approach the *Chilinae* in form and habit, and are also freshwater molluscs, there is no difficulty in distinguishing shells of the two genera. The shells of the *Chilinae* are always striped or spotted under the epidermis, and the columella is thickened, more or less plaited. All the species inhabit the warm regions of South America.

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

CHILINA FLUVIATILIS. *Chi. testâ parvâ, ovatâ, maculis fluctuosis fasciatis pictâ, intus rosâ; spirâ brevi, conicâ, columellâ anticâ rectâ, medio uniplicatâ.*

THE FLUVIATILE CHILINA. Shell small, ovate, painted with fluctuating spots in bands, pink within; spire short, conical, columella straight anteriorly, with one plait in the middle.

GRAY, in Brit. Mus. Sowerby's Conchological Illustrations, fig. 5.

Hab. Chili.

Species 2. (Fig. a, b (and Pl. III.), fig. c., Mus. Brit.)

CHILINA FLUMINEA. *Chi. testâ ovatâ, tenui, parvâ, maculis purpurâs, subquadratâs in seriâs quatuor dis-*

tinctâs notatâ; spirâ subproductâ, anfractibus parvis, concaviscutis; columellâ crassâ, planatâ, plicis duabus, unâ ad medium, alterâ suprâ medium armatâ.

THE STREAMLET CHILINA. Shell ovate, thin, small, marked with four rows of purple, rather square distinct spots; spire rather produced, whorls few, rather convex; columella thick, flattened, armed with two plaits, one at the middle and one above.

GRAY, Spicillegia Zoologica, p. 5; Conch. Ill. fig. 7.

Hab. S. America.

Species 3. (Fig. a, b, Mus. Brit.)

CHILINA MAJOR. *Chi. testâ ovato-convexâ, interruptum quadrifasciatâ, intus fuscâ; spirâ brevissimâ, anfractibus obtusè angulatis, ultimo maximo, ventricoso; columellâ obliquè biplicatâ.*

THE LARGE CHILINA. Shell oval, ventricose, interruptedly four-banded, brown within; spire rather short, whorls obtusely angular, the last very large, ventricose; columella obliquely two-plaited.

SOEWERY, Malacological Magazine, part 2; Conch. Ill. fig. 7.

Hab. S. America.

This very large species is very characteristic of the genus to which it belongs.

Species 4. (Fig. a, b, Mus. Brit.)

CHILINA DOMBEYANA. *Chi. testâ oblongâ, ovatâ, intus fuscâ; strigis flexuosis in seriâs tribus pictâ; spirâ productâ; anfractibus obtusè angulatis; apertura oblongâ, labio externo suprâ medium sinuatâ productâ; columellâ crassâ, latâ, medio, plicâ crassâ munitâ.*

DOMBEY'S CHILINA. Shell oblong, ovate, brown within;

painted with flexuous stripes in three rows; spire produced; whorls obtusely angular; aperture oblong, with the outer lip sinuously produced above the middle; columella thick, broad, strengthened in the middle by a thick plait.

SOWERBY. Conchological Illustrations, fig. 11.

Hab. Chili.

Species 5. (Fig. *a, b*, Mus. Brit.)

CHILINA ROBUSTIOR. *Chi. testâ brevi, crassâ, ventricosâ, pallidâ fuscâ, fasciis numerosis angulatim maculatis pictâ, intus subcaeruleâ; spirâ breviusculâ, subconicâ, anfractibus paucis, obtusissimè angulatis;*

ultimo subcentrico; aperturâ subovatâ, labio externo intus incrassato; columellâ crassâ, plicis una magnâ, infra medium, alterâ parvâ, obliquâ, supra medium minutâ.

THE ROBUST CHILINA. Shell short, thick, ventricose, pale brown, painted with numerous angularly-spotted bands, bluish within; spire rather short, rather conical, whorls few, very obtusely angular; last whorl rather ventricose; aperture somewhat ovate, outer lip thickened within; columella thick, strengthened with one large plait below, and another small, oblique above the middle.

SOWERBY. Malacological Magazine; Conch. Ill. fig. 1.

Hab. S. America.



CHILINA.

PLATE II.

Species 6. (Fig. *a, b*, Mus. Brit.)

CHILINA ACUMINATA. *Chl. testâ ovato, utrinque acuminatâ, tenui, leviter, maculatâ fasciatâ, apertura spiram longitudinali aequantâ; columellâ obliquè biplicatâ.*

THE ACUMINATED CHILINA. Shell oval, acuminate at each end, thin, slightly banded with spots, aperture equalling spine in length; columella obliquely twoplaited.

SOWERBY.

Hab. Bolivia.

This, like the several species, is a thin, double-shelled, with two small, separate, but the same size, different shells, the would be a single, but the two shells under the species name.

(Fig. 6, c.) Species 10. Mus. Brit.

CHILINA OVALIS. *Chl. testâ ovato, utrinque ovato, tenui, leviter, maculatâ fasciatâ, apertura spiram longitudinali aequantâ; columellâ obliquè biplicatâ.*

THE OVAL CHILINA. Shell oval, banded, low, spots, rather oval, rather thin, aperture rather oval, columella straight, thin, obliquely twoplaited.

SOWERBY. Malacological Magazine, Pl. 2, Conch. illus. fig. 6.

Hab. Peru.

Species 7. (Fig. *a, b*, Mus. Brit.)

CHILINA FLUCTUOSA. *Chl. testâ subtriangulâti, subovato, tenui, striâs fasciatâ undulatis, substantibus longitudinalibus crassâ; anfractibus superis subgibbosis, columellâ uniplicatâ.*

THE FLUCTUATING CHILINA. Shell rather turbinated, rather ovate, thin, ornamented with rather distant longitudinal stripes undulated in bands; whorls rather gibbous above, columella single-plaited.

GRAY. Spicilegium Zoologica, t. 6, f. 19, Conch. illus. fig. 2.

Hab. S. America.

The shell figured in the Conchological Illustrations hardly seems to correspond with the shells in the British Museum to which Mr. Gray's name is attached.

Species 8. (Fig. *a, b*, Mus. Brit.)

CHILINA VILLOSA. *Chl. testâ concentricis, fasciis maculatâ, tenui, plâ, intus fasciâ; apertura spiram longâ, columellâ, columellâ indistinctè plâ, spirâ brevi, anfractibus superis subplicatis.*

THE VILLOUS CHILINA. Shell very ventricose, painted with few spiral bands, brown within; aperture large, broad anteriorly, rounded; columella indistinctly plaited, spine short; whorls rather flattened below.

SOWERBY. Malacological Magazine, Pl. 2, Conch. illus. fig. 3.

Hab. S. America.

Much more inflated than *Chilina Hispanica*.

Species 9. (Fig. *a, b*, Mus. Brit.)

CHILINA GIBBOSA. *Chl. testâ brevi, subovato, solidâ, spirâ alba striatâ, immaculatâ; apertura ovato, rotundâ, albi; columellâ rotâ, elongatâ, crassâ, medio uniplicatâ, plâ crassâ, obliquâ; spirâ brevissimâ; anfractibus superis plauclatis.*

THE GIBBOUS CHILINA. Shell short, rather oval, solid, spirally striped, not spotted; aperture ovate, large, white; columella straight, elongated, thick, single-plaited in the middle, plait thick, oblique; spine very short; whorls flattened above.

SOWERBY. Malacological Magazine, Pl. 2, Conch. illus. fig. 4.

Hab. S. America.



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CHILINA.

PLATE III.

(Fig. 2 c, Mus. Brit.)

CHILINA FLUMINEA, var., see Plate I.

Species 11. (Mus. Brit.)

CHILINA PUELCHA. *Chi. testâ ovatâ, maculis quadratis in fasciis quatuor dispositis ornatâ, intus albâ, maculis purpurâs quadratis pictâ; spirâ brevi, anfractibus obtusè angulatis; columellâ tenui, infusâ plicâ tenui, obliquâ, suprâ plicâ majori munitâ.*

THE "PUELCHA" CHILINA. Shell ovate, ornamented with square spots disposed in four rows, white within, painted with purple spots; spire short, whorls obtusely angular; columella thin, strengthened with a thin oblique rib below, and a larger one above.

OREIGNY. MS. Sowerby, Conch. Illustr. fig. 13.

Hab. Bolivia.

Species 12. (Mus. Brit.)

CHILINA PATAGONICA. *Chi. testâ oblongâ, maculato-fasciatâ; spirâ brevi, anfractibus superius obtusè angulatis, ultimo magno, lateribus rectius-culis; aperturâ ovatâ, intus purpureo sordidum maculato; columellâ crassâ, plicâ crassâ in medio munitâ.*

THE PATAGONIAN CHILINA. Shell oblong, spot-banded; spire short, whorls obtusely angular above, the last large, with rather straight sides; aperture ovate, with rows of purple spots inside; columella thick, strengthened with a thick plait in the middle.

SOWERBY.

Hab. Patagonia.

There is a cylindrical, straight-sided appearance about this shell that seems to distinguish it.

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

CHILINA TEHUELCHA. *Chi. testâ solidâ, ovato-subcylindricâ, tenuiter fasciatim striatâ; spirâ brevi, conicâ, anfractibus superius angulatis, subplanulatis, ultimo subrecto, aperturâ magnâ, columellâ latâ, crassâ, irregulariter et obscurè bicipitatâ.*

THE "TEHUELCHA" CHILINA. Shell solid, ovate-subcylindrical, thinly striped in bands; spire short, conical, whorls angular above, rather flattened, aperture large, columella broad, thick, irregularly and obscurely bicipitate.

OREIGNY. MS. Sowerby, Conch. Illustr. fig. 9.

Hab. S. America.

A rather solid species, with very stout columella.

Species 14. (Mus. Brit.)

CHILINA ELEGANS. *Chi. testâ tenui, ovatâ, utrinque acuminatâ, subtus epidermidem eleganter lineis fasciatim undulatis pictâ; spirâ acuminatâ, productâ; aperturâ ovatâ, anticè subattenuatâ; columellâ medio uniplicitâ.*

THE ELEGANT CHILINA. Shell thin, ovate, acuminate at each end, elegantly painted with lines undulating in bands; spire acuminate, produced; aperture ovate, anteriorly subattenuated; columella with a single plait in the middle.

FAIRFIELD. MS. Brit. Mus.

Hab. Bolivia.

Species 15. (Mus. — ? copied.)

CHILINA TENCIS. *Chi. testâ tenui, subovatâ, subtruncatâ, intus fasciâ, undulatim, pictâ; spirâ conicâ, acu-*

CHILINA.—PLATE III.

minatâ; columellâ angustâ, rectiusculâ, obliquè et tenuiter buplicatâ.

THE THIN CHILINA. Shell thin, subovate, rather turbinated, brown within, painted with undulations; spire conical, acuminate; columella narrow, rather straight, obliquely and thinly two-plaited.

GRAY. Sowerby, Conch. Illustrations, fig. 12.
Hab. S. America.

The second figure given in the Conchological Illustrations for *Chilina tenuis* is that of a *C. fluctuosa*.

Species 16. (Mus. Brit.)

CHILINA FASCIATA. *Chi. testâ ovatâ, tenui, fasciis interruptis tribus cinctâ; spirâ acuminatâ, anfractibus convexiusculis, ultimo magno, ovato; columellâ infrâ tortuâ medio obliquè buplicatâ.*

THE BANDED CHILINA. Shell ovate, thin, encircled with three interrupted bands; spire acuminate, whorls rather convex, the last large, ovate; columella tortuous below, with two oblique folds in the middle.

GOULD — ?

Hab. S. America.

The bands of this species are soft and not distinctly interrupted.

Species 17. (Mus. Brit.)

CHILINA SUBCYLINDRICA. *Chi. testâ ovato-subcylindricâ,*

intâs, fusco-purpureascenti, spirâ productâ, anfractibus supernè angulatis, declivibus, ultimo ad latera rectiusculo, aperturâ subovata, labio externo intâs incrassato; columellâ plivis unâ superiori magno, alterâ inferiori parvâ, nunitâ.

THE SUBCYLINDRICAL CHILINA. Shell ovate, subcylindrical, purplish-brown, spire produced, whorls angular above, sloped, the last rather straight at the sides, aperture subovate, outer lip thickened within; columella strengthened with an upper large plait, and a lower small one.

SOWERBY.

Hab. Ancud, Chili.

Species 18. (Mus. Brit.)

CHILINA PARCCHAFFIL. *Chi. testâ oblongo-ovatâ, pallidâ cornâ, tenui, strigis parvis undulatis rubris in fuscis tribus aut quatuor dispositis ornata; spirâ subattenuatâ, anfractibus declivibus, ultimo ovato, supernè subangulato; columellâ supernè uniplicatâ, infrâ tortuâ.*

PARCCHAFFIL'S CHILINA. Shell oblong-ovate, pale horny, thin, ornamented with small red undulated stripes, disposed in three bands; spire rather attenuated, whorls sloped, the last ovate, rather angular above; columella single-plaited above, tortuous below.

ORBIGNY. Synopsis. Sowerby's Conchological Illustrations, fig. 8.

Hab. Conception Island.

MONOGRAPH

OF THE GENUS

PHYSA.

"No one can express Thy will, O Whoe that knows them."—*Ge. 1. 1. Hebr. 1. 1.*



2a.



1



2b



3



4a



4b



5



6a



6b



7

Species 5. (Mus. Sowerby.)

PHYSA SUBINFILATA. *Phy. testâ brevi, inflatâ, ovato-acuminatâ, pallidâ coracâ; spirâ brevi, acuminatâ; anfractibus rapidi crescentibus, ultimo inflato, ovali; aperturâ subpyriformi; margine rix contracto; columellâ obliquâ, pluci rix conspicuâ.*

THE SUBINFILATED PHYSA. Shell short, inflated, ovately acuminated, pale horn; spire short, acuminated; whorls rapidly increasing, the last inflated, oval; aperture rather pyriform, with margin scarcely contracted, columella oblique, fold scarcely conspicuous.

SWELLED.

Hab. S. Australia.

Much more ovate and acuminated than either *Physa inflata* or *Ph. Newcombii*, with the latter of which it is associated in the text.

Species 6. (Mus. Brit.)

PHYSA ALICE. *Phy. testâ subovatâ, fumoso-fuscâ, liris spiralibus subtilissimatis, parvâ elevatis, ciliatis et striis longitudinalibus cancellatâ; spirâ brevi, acuminatâ, ultimo anfractu parvâ suturam angulato; aperturâ subovatâ, marginâ, pluci, conspicuâ.*

ALICE'S PHYSA. Shell subovate, smoky-brown, can-

cellated with rather distant slightly elevated, ciliated ridges and longitudinal striae; spire short, acuminated, the last whorl angulated near the suture; aperture rather oval, large, plait conspicuous.

REEVE. Proc. Zool. Soc.

Hab. India.

Species 7. (Figs. 7 and 7 b, c, Plate XI.
Mus. Sowerby.)

PHYSA HYPNOTUM. *Phy. testâ longâ, acuminatâ, nitenti, siccâ; spirâ aperturam longitudinè apertâ, anfractibus parvis obliquis, attenuatis; aperturâ angustâ, pluci columellari conspicuâ, tortuâ.*

THE MOSS PHYSA. Shell elongated, acuminated, shining, amber coloured; spire equalling aperture in length, whorls few, oblique, attenuated; aperture narrow, columella plait conspicuous, tortuous.

LINNEUS (Bull.). Systema Naturæ.

Hab. Great Britain; France; Europe generally; United States (var. 7 b).

The specimen figured (7 b) from Michigan near the Rapids is much larger than the European examples, but presents all the same characteristics.



9



8



10



11



12^a



12^b



12



14



16



15

P H Y S A.

PLATE II.

Species 8. (Mus. Sowerby.)

PHYSA ACUTA. *Phy. testâ oratâ, translucidâ, pallidâ cornâ, politâ; spirâ acuminatâ; aperturâ semi-oratâ, intus propè marginem paulô incurvatâ; plâci columbellari vix prominenti, rectiusculâ.*

THE ACUTE PHYSA. Shell ovate, translucent, pale horn, polished; spire acuminated; aperture semi-ovate, a little thickened within near the margin; columellar fold scarcely prominent, rather straight.

DESMOND'S MOLLUSCA, p. 55, pl. 3, f. 10, 11.

Hab. Sicily.

This species, which resembles *Physa foetida* in some respects, differs from it in the production and sharpness of the apex.

Species 9. (Mus. Sowerby.)

PHYSA HELMUTHIANA. *Phy. testâ orato-oblongâ, tenui, semipallidâ, cornâ, fusco-griseâ; ut, fuscis pallidâ furis distinctibus oratâ, aperturâ intus costatâ; esbellâ subortâ, albâ.*

HELMUTH'S PHYSA. Shell ovate-oblong, thin, semi-pallid, horny, greyish brown, ornamented with distant pale fulvous bands; aperture chestnut within; columella rather tortuous, whitish.

L. L. — ?

Hab. Michigan.

Species 10. (Mus. Brit.)

PHYSA NOVÆ HOLLANDIÆ. *Phy. testâ subfusiformi, junco-stramineâ; spirâ parvâ, acuminatâ; anfractibus rotundis, apicalibus minutis, ultimo anfractu brevi aperturâ fere albâ, spiram longitudo in æquantem; plâci columbellari rotundâ, conspicuâ.*

THE NEW HOLLAND PHYSA. Shell sub-fusiform, smoky-straw-coloured; spire produced, acuminated; whorls round, apical ones small, last whorl short;

aperture nearly white, equalling the spire in length; columellar plait tortuous, conspicuous.

BLAINVILLE. *Malacologie,* pl. 37, fig. 3.

Hab. New Holland.

Species 11. (Mus. Sowerby.)

PHYSA MAUGLE. *Phy. testâ ovato-subpyramidatâ, politissimâ, fusco-griseâ; ut, striâs albâs longitudinibus interruptis annosis notatâ; spirâ brevi; versis apicem nigricantem; ultimo anfractu magno, subcylindrico, posticè subattenuato, anticè subtruncato; aperturâ pallidâ, elongatâ, pyriformi, plâci columbellari compresso, rectiusculâ, albâ.*

MAUGLE'S PHYSA. Shell ovate-subpyramidal, very shining, greyish brown, marked with numerous white longitudinal interrupted stripes; spire short, darkening towards the apex; last whorl large, subcylindrical, posteriorly subattenuated, anteriorly somewhat truncated; aperture pale, elongated, pyriform, columellar fold compressed, rather straight, white.

QUOY. *Voy. de l'Astrolabe.*

Hab. Jamaica.

Species 12. (Fig. a, b, Mus. Brit.)

PHYSA PERUVIANA. *Phy. testâ anguste pyramidatâ, politissimâ, plumbeâ vel saburoâ vel stramineâ; spirâ attenuatâ, acuminatâ, anfractibus posticè attenuatis; ultimo anfractu anticè inflato, subtruncato; aperturâ longiusculâ, anticè latiusculâ, intus aurâ vel pallidâ rosâ; plâci columbellari tenui, retrosum obliquatâ.*

THE PERUVIAN PHYSA. Shell narrowly pyramidal, very shining, plum-coloured or rather golden or straw-coloured; spire attenuated, acuminated, whorls posteriorly attenuated; last whorl anteriorly inflated, subtruncated; aperture rather long

anteriorly rather broad, golden within or pale pink; columellar fold thin, turned obliquely backwards.

GRAY. Spirifera Zoologica, p. 5, pl. 6, fig. 10.

Hab. Guayaquil, Peru.

More slender and tapering than *Physa Mangerici*.

Species 13. (Mus. Brit.)

PHYSA AFRICANA. *Phy. testâ inflatâ, subpyramidatâ, aurantio-fuscâ, politissimâ, filis auris undulatis posticis magis auratis strigatâ, fasciâ aurâ spirali posticâ zeturum marginatâ; aperturâ pyriformi, intus auro-fuscâ, labiâ interno expansâ.*

THE ORANGE-COLOURED PHYSA. Shell inflated, subpyramidal, orange-brown, very shining, striped with golden, undulated, threads more numerous posteriorly; bordered near the suture with a golden spiral band; aperture pyriform, golden-brown within, inner lip expanded.

—? MS. Mus. Brit.

Hab. Mexico.

Species 14. (Mus. Brit.)

PHYSA SOLIDA. *Phy. testâ ovatâ, crassiusculâ, rubro-fuscâ, fasciâ pullulâ subaurâ longitudinaliter lineâ illâ strigatâ; spirâ breviusculâ, subacuminatâ; aperturâ intus floccidâ, rubro-fuscâ prope marginem fasciatâ, plivâ columellari tortuosâ.*

THE SOLID PHYSA. Shell ovate, rather thick, red-brown, longitudinally striped here and there with a pale golden band; spire rather short, subacuminated; aperture yellowish within, banded near the margin with reddish brown columellar plait tortuous.

PHILIPPI. —? (Adams, Genera.)

Hab. Tennessee, United States.

A somewhat thick-set species, of dark horn colour with an occasional light band.

Species 15. (Mus. Brit.)

PHYSA VINOsa. *Phy. testâ brevi, inflatâ, subovatâ, rubro-fuscâ; spirâ brevi, conici; aperturâ magna, intus castaneâ; plivâ columellari crassiusculâ, tortuâ.*

THE VINOUS PHYSA. Shell short, inflated, subovate, red brown; spire short, conical; aperture large, cleft with within, columellar fold rather thick, tortuous.

GOULD. Expedition Shells.

Hab. Lake Superior.

Species 16. (Mus. Brit.)

PHYSA INFLEXUATA. *Phy. pyramidatâ, posticâ attenuatâ, anticâ inflatâ, subtruncatâ, politissimâ, fusco-aurantiâ, celsâ apicem vinctâ; spirâ angustâ, elongatâ, acuminatâ; aperturâ latâ; spiram longitudinalium parvam superantem; ultimo anfractu anticâ valvâ inflatâ.*

THE RIVER PHYSA. Shell pyramidal, posteriorly attenuated, anteriorly inflated, subtruncated, much polished, orange-brown, vinous towards the aperture; spire narrow, elongated, acuminated; aperture wide, a little longer than the spire, last whorl much inflated anteriorly.

MOGILET. —?

Hab. Guatemala.

This species belongs to the same group with *Physa Mangerici*, *aurantia*, *Peruviana*, &c., but is more pyriform than either.



18^a



17^d



18^f



17^c



19



20



21



22



23



24



25

26

P H Y S A.

PLATE III.

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

PHYSA TAMPAYATA. *Phy. testis inflatib., solidib., laevib., fuscesc. testis; spiræ obtusâ, brevissimâ, anfractibus subquadatis, prop. sicutam plurimatis; anfractibus coloris rosei, rot. subâta in apert. ; apertura latâ, testis pallidâ, anthe. et claus. arcuata, lobis intercolumnarib. par. columnellâ latâ in testis.*

THE INFLATED PHYSA. Shell inflated, solid, short, greenish-brown; spire obtuse, rather short, when rather square, flattened near the summit; last whorl large, roundly angular; aperture web, pale within, slightly annulated within, inner lip strong, columellar fold thick, tortuous.

Gold. —
Hab. New Zealand.

Remarkable for the flatness of the whorls above the angle.

Species 18. (Fig. a, b, Mus. Brit.)

PHYSA CARINATA. *Phy. testis subcylindricâ, truncâ, pedicelâ stramineâ, postis latâ in a; spirâ brevissimâ, truncatâ, anfractibus serrat. crenatis, super. car. in a plurimatis, ultimo anfractu anteb. subangustato; apertura oblongâ, atriâ a. annulatâ, plicâ columellari latâ, laevib. testis.*

THE KEELD PHYSA. Shell subcylindrical, thin, pale straw, posteriorly rather wide; spire very short, truncated, whorls keeled above, flattened above the keel; last whorl anteriorly rather narrow, aperture oblong, anteriorly acuminate, columellar fold slightly tortuous.

H. ADAMS, Proc. Zool. Soc.
Hab. Boyne River.

Not so flat at the top as *Physa Riccii*, Ad. and Ang., having one or more whorls inserted.

Species 19. (Mus. Brit.)

PHYSA ISIDORA. *Phy. subovata, angustissimâ, politâ, fulvâ crenâ, pellucidâ; spirâ crenâ, anfractibus crenatis, distinctis; ultimo anfractu cylindrico; apertura oblongatâ, intus prop. anguina parvam arcuata; plicâ columellari brevissimâ, tortâ.*

THE ISIDAT PHYSA. Shell subovate, rather narrow, polished, fulvous, horn-coloured, pellucid; spire prole d. whorls convex, distinct; last whorl cylindrical, aperture rather lengthened, a little thickened within near the margin, columellar fold rather short, tortuous.

HALLÉMAN, Monograph.
Hab. Mohawk Bay.

Species 20. (Mus. Brit.)

PHYSA TRUNCATA. *Phy. testis truncâ, turbinatâ, subcricidâ fuscâ; spirâ pluriâ, latâ, truncatâ, anfractibus crenatis; apertura angustâ, intus pallidâ, purpurascens, atriâ subannulatâ, plicâ columellari truncâ, valb. tortuosâ.*

THE TRUNCATED PHYSA. Shell thin, turbinate d, greenish-brown; spire flat, broad, truncated, whorls keel d, aperture narrow, pale purple rose-coloured within, a little attenuated anteriorly, columellar fold thin, very tortuous.

H. ADAMS, Proc. Zool. Soc. (not *Ph. truncata*, Ferr.)
Hab. Bindjkin River.

This, like *Physa Riccii*, Ad. and Ang., has the spire quite flat, but the aperture tends to narrow towards the anterior termination.

Species 21. (Mus. Brit.)

PHYSA NEWCOMBI. *Phy. testis ovato-subglobosâ, arcuostriatâ; spirâ crenâ, annulatâ, anfractibus rotundis, distinctis; ultimo anfractu magno, brevissimâ.*

PHYSA.—PLATE III.

culo, rotundato, substriato, post columellam excavato; aperturâ magnâ, latâ, intus pallidè rosâ; plicâ columellari reticulatâ, elongatâ, labio externo obliquè producto.

NEWCOME'S PHYSA. Shell ovate-subglobose, golden straw-coloured; spire produced, acuminate, whorls rounded, distinct; last whorl large, rather short, rounded, slightly striated, hollow behind the columella; aperture large, broad, pale rose within, columellar fold rather straight, elongated; outer lip obliquely produced.

ADAMS and ANGAS. Proc. Zool. Soc., 1863, p. 416.

Hab. Central Australia.

Species 22. (Mus. Brit.)

PHYSA SALLEANÆ. *Phy. testâ tenui, politâ, cornâ, pallidè purpureâ, spirâ acuminatâ, attenuatâ, ultimo anfractu ovato, angustâ; aperturâ anticè latissimâ, intus pallidissimè rosâ; plicâ columellari brevi, crassâ, tortuâ.*

SALLE'S PHYSA. Shell thin, polished, horny, pale purple, spire acuminate, attenuated, last whorl ovate, narrow; aperture anteriorly rather broad, very pale pink within; columellar fold short, thick, tortuous.

PREIFFER. Proc. Zool. Soc. 1853, p. 53.

Hab. St. Domingo.

A smooth shell belonging to the same group as *Physa Peruviana*, with a much more acuminate spire.

Species 23. (Mus. Brit.)

PHYSA ACUMINATA. *Phy. testâ angustâ, cylindricâ, cornâ, semipellucidâ, politâ; spirâ exsertâ, acuminatâ; ultimo anfractu cylindrico, elongato; aperturâ angustâ, plicâ columellari obliquâ.*

THE ACUMINATED PHYSA. Shell narrow, cylindrical, horny, semipellucid, polished; spire exserted, acuminate; last whorl cylindrical, elongated; aperture narrow, columellar fold oblique.

GRAY? MS. Brit. Mus.

Hab. St. Thomas's Isl. W. Indies.

A little resembling the preceding, but narrower and more cylindrical.

Species 24. (Fig. a, b, Mus. Brit.)

PHYSA OBESA. *Phy. testâ subviride fuscâ vel ferrugineâ, turbinatâ, posticè truncatâ; spirâ rix exsertâ, anfractibus planulatis, angulatis, ad angulam carinatis; ultimo anfractu posticè lato, anticè subacuminato; aperturâ posticè quadratâ, intus pallidè rosâ; plicâ columellari tenui, subtortâ.*

THE FAT PHYSA. Shell greenish brown or ferruginous, turbinated, posteriorly truncated; spire scarcely exserted, whorls flattened, angular, keeled at the angle; last whorl broad posteriorly, subacuminate anteriorly; aperture posteriorly quadrate, pale pink within; columellar plait thin, somewhat tortuous.

H. ADAMS. Proc. Zool. Soc.

Hab. Fitzroy River.



P H Y S A.

PLATE IV.

Species 25. (Mus. Sowerby.)

PHYSA TURBIDIMEX. *Phy. testâ inflatâ, brevi, levigatâ, truncatâ; spirâ productâ, anfractibus brevibus, rotundatis; antice angustâ inflatâ, brevi, post columellam excavatâ; aperturâ obliquâ declivi, productâ, labio interno perpendiculari, antice subacuminatâ, et basiâ tenuiusculâ, rectiusculâ.*

THE TURBIDINOUS PHYSA. Shell inflated, short, smooth, ferruginous; spire produced, whorls short, rounded; last whorl inflated, short, a little excavated behind the columella; aperture obliquely sloped, produced, dull purple within, anteriorly subacuminated, columella rather thin, rather straight.

ANNALS AND MAGAZ. PROC. ZOOLOG. SOC., 1863, p. 116.
Hab. N. Z. in Australia.

Species 26. (Mus. Brit.)

PHYSA TRIGONIS. *Phy. testâ trioni, patellâ, subovata; aperturâ magna, antice subacuminatâ; spirâ brevi, anfractibus parvis, parvis; ultimo anfractu lateraliter inflato.*

THE TRIANGLE PHYSA. Shell thin, pale, subovate; aperture large, anteriorly subacuminated; spire short, whorls few, small; last whorl laterally inflated.

MIDDLELS. Haldeman's Monograph, Pl. III, f. 11-13.
Hab. Maine, United States.

Species 27. (Mus. Brit.)

PHYSA GIBBOSA. *Phy. testâ breviter subcylindricâ, patellâ striatâ, patellâ; spirâ brevi, conicâ, acuminatâ; ultimo anfractu superne gibboso vel columellato-angulato; antice subacuminatâ; aperturâ clonipatâ, labio interno rectiusculo, plicâ columellari brevi tortuâ.*

THE GIBBOUS PHYSA. Shell shortly subcylindrical, pale-straw, very smooth; spire short, conical, acuminated; last whorl gibbous or roundly angular above; anteriorly somewhat attenuated; aperture elongated, outer lip rather straight, columellar plicat short, tortuous.

GOULD. Expedition.
Hab. New Zealand.

Species 28. (Fig. a, b, Mus. Brit.)

PHYSA LORDEI. *Phy. testâ inflatâ, subtrigona, solidiusculâ, superne angulatâ; spirâ conicâ, anfractibus angulatis, superne angulata subplanulatis; anfractu ultimo inflato, angulato, brevi; aperturâ superne angulatâ; intus propè marginem costarum fasciatâ, antice acuminatâ, productâ; plicâ columellari tenui, prominente, tortuâ.*

LORDE'S PHYSA. Shell inflated, subtrigonal, rather solid, angular above; spire conical, whorls angular, a little flattened above the angle; last whorl inflated, angular, short; aperture angular above, banded with chestnut within near the margin, anteriorly acuminated, produced; columellar fold thin, prominent, tortuous.

BAIRD. Proc. Zool. Soc.
Hab. Lake Oregon, British Columbia. Collected by J. K. Lord, Esq.

Species 29. (Fig. a, b, Mus. Brit.)

PHYSA NOVE ZELANDIÆ. *Phy. testâ turbinatâ, solidâ, costarum, levigatâ; spirâ conicâ, anfractibus rotundis angulatis; ultimo anfractu interne conicâ, antice subacuminatâ; aperturâ subaurâ; labio interno curvato, plicâ columellari superne subgibbosa.*

THE NEW ZEALAND PHYSA. Shell turbinated, solid, chestnut, smooth; spire conical, whorls roundly angular; last whorl inversely conical, anteriorly somewhat acuminate; aperture rather golden; inner lip strong; columellar fold a little gibbous at the top.

GRAY. MS. Brit. Mus.

Hab. New Zealand.

Species 30. (Mus. Brit.)

PHYSA ELONGATA. *Phy. testâ angustâ, elongatâ, pyramidalâ, nitentâ, stramineâ vel subaurâ, lecitâ strigatâ; spirâ aperturam longitudine paulo superanti, ultimo anfractu subovato; aperturâ breviusculâ, intus pallidâ, labio interno expanso, plicâ columellari breviusculâ, tenui, tortuâ.*

THE ELONGATED PHYSA. Shell angular, elongated, pyramidal, shining, straw-coloured or slightly golden, slightly streaked; spire a little exceeding aperture in length; last whorl somewhat oval; aperture rather short, pale inside, inner lip expanded, columellar fold rather short, thin, tortuous.

SAY. New York Acad. Nat. Sci., vol. ii. p. 171.

Hab. North America?

Species 31. (Mus. Brit.)

PHYSA RIVALIS. *Phy. testâ pallidâ cornâ, semipellucidâ, levigatâ, angustâ, ovato-oblongâ; spirâ breviusculâ, anfractibus concavis; ultimo anfractu elongato;*

aperturâ elongatâ, intus propè marginem castaneo pallidâ fuscâ.

THE RIVER PHYSA. Shell pale horn, semi-pellucid, smooth, narrow, ovate-oblong; spire rather short, whorls convex; last whorl elongated; aperture elongated, with a pale chestnut band near the margin.

SOWERBY. Genera of Shells, Linnaea, fig. 9.

Hab. Columbia River.

Species 32. (Mus. Brit.)

PHYSA MESTA. *Phy. testâ inflatâ, brevî, obscurè fusco-subviridî; spirâ erectâ, acuminatâ, anfractibus superne planulatis, angulatis, ad angulum plusminusve subcurvatis; aperturâ latâ, intus castaneâ; plicâ columellari validi, elevatâ, crassâ.*

THE SAD PHYSA. Shell inflated, short, dull greenish-brown; spire exerted, acuminate, whorls above flattened, angular, more or less keeled at the angle; aperture broad, chestnut within; columellar fold strong, raised, thick.

H. ADAMS. Proc. Zool. Soc.

Hab. New Zealand.

This species has very close relations with *Physa tabulata* of Gould. The chief difference consists in the rounded angles of the whorls in the latter and the distinct square angles in the former. These characters, however, are somewhat varied, and some specimens in each approach very nearly to each other.



32



33^a



34



35



36



37



38



39^a



40



41



42

43

P H Y S A.

PLATE V.

Species 32*. (Mus.—? Copied.)

PHYSA TROPICA. *Phy. testâ subglobosa, albâ, epid. r. vidè obscure subviridi inflatâ; spirâ breviusculâ, anfractibus rotundis, distinctis; ultimo anfractu rotâ inflato, rotundo, post columellam excavato; apertura rotundâ, sporan longitudine superanti, obliquè productâ, columellâ leviter arcuatâ.*

THE TROPICAL PHYSA. Shell subglobose, whitish, clothed with a dull greenish epidermis; spire rather short, whorls round, distinct; last whorl much inflated, rounded, excavated behind the columella; aperture rounded, longer than the spire, obliquely produced, columella slightly curved.

KEMPS, Sudafrikanischen Mollusken, tab. 5, fig. 12.
Hab. South Africa.

Species 33. (Fig. a, b, Mus. Brit.)

PHYSA LAMMARIATA. *Phy. testâ fulvâ, levî, levî, subpyramidalâ; spirâ aperturam fere longioribus aequantî; anfractibus rotundis, simî, levibus; ultimo anfractu levî, rotundo, post columellam umbilicato; apertura subovata, labio externo arcuato, labio interno crasso, latè reflexo; columellâ latissimâ, levatâ, crassâ, fere rectâ, plivâ indistinctâ.*

THE WIDE-LIPPED PHYSA. Shell fulvous, short, smooth, rather pyramidal; spire nearly equal in length to the mouth; whorls rounded, short; last whorl short, round, umbilicated behind the columella; aperture subovate, outer lip arched, inner lip thick, widely reflected; columella very wide, elevated, thick, nearly straight, plait indistinct.

SOWERBY.

Hab. Victoria River.

This species has two remarkable characters, namely, the umbilicus in the body whorl, and the very broad columella.

Species 34. (Mus. Brit.)

PHYSA OLIVACEA. *Phy. testâ angustâ, subfusiformi, obscure olivaceâ, solitâsculâ; spirâ elevatâ, apertura longitudine aequantî, anfractibus subangulatis, uno apicali mammillato; anfractu ultimo postivè angulato, apertura intus castaneâ; plivâ columellari breviusculâ.*

THE OLIVACEOUS PHYSA. Shell narrow, subfusiform, dull olive, rather solid; spire elevated, equalling the aperture in length, whorls rather angular, the apical one mammillated; last whorl posteriorly angular; aperture chestnut within; columellar fold rather short.

ADAMS and ANGLAS, Proc. Zool. Soc., 1863, p. 416.

Hab. Arnheim's Land. Australia.

Species 35. (Mus. Brit.)

PHYSA CONGINNA. *Phy. subovata, coracâ, pellucidâ; spirâ breviusculâ, anfractibus paucis, convexis; ultimo anfractu subcylindrico; apertura subovata intus propè marginem fulvâ fasciatâ, plivâ columellari subsparaliter tortuâ.*

THE NEAR PHYSA. Shell subovate, horny, pellucid; spire rather short, whorls few, convex; last whorl rather cylindrical; aperture subovate, with a fulvous band inside near the margin, columellar fold rather spirally tortuous.

ADAMS and ANGLAS, Proc. Zool. Soc., 1863, p. 417.

Hab. Arnheim's Land.

Species 36. (Mus. Brit.)

PHYSA GYRINA. *Phy. testâ orato-subcylindricâ, politâ, pallidè succineâ, semipellucidâ; spirâ convexâ, anfractibus convexiusculis; ultimo anfractu subcylindrico; apertura elongatâ, spiram longitudine multo superantî, intus propè marginem castaneâ.*

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fasciata; *plicâ columellari rectâscula*, *hauri promiuenti*.

THE RINGLET PHYSA. Shell ovate, subcylindrical, polished, pale amber, semipellucid, spire conical, whorls rather convex; last whorl rather cylindrical, aperture elongated, much longer than the spire, banded with chestnut within near the margin; columellar fold rather straight, not conspicuous.

SAY. Journ. A. N. S. Plâil, vol. ii. p. 171.

Hab. Near Grand Rapids, Michigan.

Species 37. (Mus. Brit.)

PHYSA ANTHOPIA. *Phy. testâ fusiformi, inflatâ, fulva-ferruginâ, opacâ, substriatâ; spirâ elevatâ, anfractibus concavis; ultimo anfractu ovato, in mediâ inflato; aperturâ ovatâ, plicâ columellari elevatâ, tenui, obliquè subrotatâ.*

THE ANTIPODEAN PHYSA. Shell fusiform, inflated, ferruginous brown, opaque, slightly striated; spire elevated, whorls convex; last whorl ovate, swelled in the middle; aperture ovate, columellar fold elevated, a little obliquely twisted.

SOWERBY.

Hab. New Zealand.

Species 38. (Fig. a, b, Mus. Brit.)

PHYSA BONS-HILNERUS. *Phy. testâ parvâ, subovata, solidâscula, fuscâ; spirâ brevi, obtusâ, anfractibus*

parvis, rotundatim angulatis; ultimo anfractu perobliquâ, prope suturam gibboso, ad latera compresso, rectâsculo; aperturâ obliquè productâ, declivâ, iutâs pallidâ, labio externo rectâsculo, plicâ columellari leviter turtosâ.

THE GOOD-HENRY PHYSA. Shell small, subovate, rather solid, brown; spire short, obtuse, whorls small, roundly angular, last whorl very oblique, gibbous near the suture, compressed at the sides, rather straight; aperture obliquely produced, sloped downwards, outer lip rather straight, columellar fold slightly twisted.

ADAMS and ANGAS. Proc. Zool. Soc., 1863, p. 417.

Hab. North Australia.

Species 39. (Fig. a, b, Mus. Brit.)

PHYSA GRANULATA. *Phy. testâ parvâ, ovato-subfusiformi, pallidâ, fulvâ, minutissimè granulatâ; spirâ elevatâ, brevi, obtusâ, anfractibus duobus, prominentibus; ultimo anfractu supra aperturâ elevato, obliquè declivâ, hincâsculo; aperturâ semiovatâ, plicâ columellari rectâ.*

THE GRANULATED PHYSA. Shell small, ovate-subfusiform, pale fulvous, very minutely granulated; spire elevated, short, obtuse, whorls two, prominent; last whorl elevated above the aperture, obliquely sloped, rather short; aperture semi-ovate, columellar fold straight.

SHUTTLWORTH. MS.

Hab. Barbadoes.

A characteristic little species, in which the granulations are scarcely perceptible.



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P H Y S A.

PLATE VI.

Species 10. (Mus. Brit.)

PHYSA REYDI. *Phy. testâ turbinatâ, tenuisculâ, obscurè fusco-subciliâ; spirâ truncatâ, planulatâ, angustibus carinatis; ultimo angustâ inversè conicâ, anticè subangulatâ, aperturâ posticè angulatâ, anticè retroisâ subarcuatâ; plâcâ columellari retroisâ tortuosâ.*

REYDI'S PHYSA. Shell turbinated, rather thin, dull greenish-brown; spire truncated, flattened, whorls carinated; last whorl inversely conical, anteriorly a little acuminate; aperture posteriorly angular, anteriorly a little arched, columellar fold twisted a little backwards.

ADAMS and ANGUS, Proc. Zool. Soc., 1863, p. 117.

Hab. North Australia.

Species 11. (Mus. Brit.)

PHYSA HUMEROSA. *Phy. testâ breviter subglandricâ, pallidâ, crassâ; spirâ breviusculâ, acuminatâ; angustâ ultimo superâ propè anteriâ gibbosa, subangulatâ, lat. ribas et ciliâ; aperturâ semi-orbatâ; columellâ crassâ, rix arcuatâ, rix pliatâ.*

THE SHORTFIELD PHYSA. Shell shortly subeylindrical, pale, thick; spire rather short, acuminate; last whorl gibbous and somewhat angular above, near the suture, with straight sides; aperture semi-ovate; columella thick, scarcely arched, scarcely pliated.

GOULD. — ?

Hab. New Mexico.

Species 12. (Mus. Brit.)

PHYSA SEMI-GLOBOSA. *Phy. testâ globosâ-obovatâ, coruscâ-subciliâ, nitentâ, tenuissimâ, pallidâ; spirâ brevissimâ, aperturâ angustâ, suborbatâ, ultimo angustâ inflatâ; plâcâ columellari tenui, arcuatâ tortuosâ.*

THE SEMI-GLOBOSE PHYSA. Shell globose, subovate, greenish-horn, shining, very thin, pellucid; spire very short, aperture large, subovate, last whorl inflated; columellar fold thin, twisted archwise.

WESTERLAND, Mollusques terrestres et d'eau douce, p. 20.

Hab. Sweden.

Species 13. (Fig. a, b, c, Mus. Brit.)

PHYSA PROTUS. *Phy. testâ solidi, fusiformi, brevitatâ, pallidâ; fuscâ aut cinerâ, fasciis castaneis vel albido-subcaeris longitudinalibus variegatâ; spirâ elongatâ vel breviusculâ, angustibus conicis, nunquam subangulatis, aperturâ semi-orbatâ, intus purpureiscenti; plâcâ columellari crassâ, tortuâ.*

THE PROTUS PHYSA. Shell solid, fusiform, smooth, pale-fulvous or cinereous, varised with chestnut or yellowish-white longitudinal bands; spire elongated or rather short, whorls convex, sometimes a little angular; aperture semi-ovate, purpleish within; columellar plait thick, tortuous.

SORLEY.

Hab. West Australia.

There is quite a gradation from the elegantly fusiform to the stunted angular character.

Species 14. (Mus. Brit.)

PHYSA CUMINGII. *Phy. testâ subinflatâ, inversè conicâ, fusco-ferruginosâ; spirâ brevissimâ, planulatâ, angustâ ultimo mucronâ, posticè obtusè subangulatâ, tumido, anticè paulo attenuatâ; aperturâ elongatâ, labio externo sinuato, labio interno crasso, lato, plâcâ columellari tortuâ, rotundâ.*

CUMING'S PHYSA. Shell a little inflated, inversely conical, ferruginous brown; spire very short.

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flattened, last whorl very large, posteriorly obtusely subangular, tumid, a little attenuated in front; aperture elongated, outer lip sinuated, inner lip thick, broad; columellar fold tortuous, strong.

H. ADAMS, Proc. Zool. Soc.

Hab. Port Essington.

Species 45. (Mus. Brit.)

PHYSA HILLOSTROPHA. *Phy. testâ ovato-subfusiformi, fulvâ, opacâ, spirâ hexâscali, acuminatâ, anfractibus paucis, parvis, rotundis; ultimo anfractu inflato, becci, post columellam subexsertato; apertura magna, semi-ovata, latâs aurci, propi marginem costarum fasciatâ; columellâ elongatâ, fere rectâ.*

THE HETEROSTROPHIC PHYSA. Shell ovate-subfusiform, fulvous, opaque, spire rather short, acuminated, whorls few, small, rounded; last whorl inflated, short, a little hollow behind the columella; aperture large, semi-ovate, inside aureous, banded with chestnut near the margin, columella elongated, nearly straight.

SAY, Halleman's Monograph.

Hab. Pittsburgh, Pennsylvania.

Species 46. (Mus. Brit.)

PHYSA SPICULATA. *Phy. testâ elongatâ, angustâ, fusco-cinereascenti, roseo-fulco imbutâ, nitidâ; spirâ productâ, attenuatâ, acuminatâ; apertura angustâ, semi-ovata, plicâ columellari tenui.*

THE SPIKED PHYSA. Shell elongated, narrow, ash-brown, clouded with fulvous pink; shining; spire produced, attenuated, acuminated; aperture narrow, semi-ovate; columellar fold thin.

MOBELLI. — ?

Hab. — ?

Species 47. (Mus. Brit.)

PHYSA SOWERBYANA. *Phy. testâ oblongo-ovata, politâ, obscurè succineâ; spirâ elevatâ, acuminatâ; ultimo anfractu subovato; columellâ tenui, leviter tectosâ.*

SOWERBY'S PHYSA. Shell oblong-ovate, polished, dull amber, spire elevated, acuminated; last whorl nearly oval; columella thin, slightly tortuous.

D'ORIGNY.

Hab. Jamaica.

Much more inflated than *Physa spiculata*, but not so much so as others of similar form.



PHYSA.

PLATE VII.

Species 48. (Mus. Brit.)

PHYSA ALBICATA. *Phy. testâ parvâ, ovatâ, politâ, rufo-fulvâ, albo striatâ; spirâ breviusculâ, obtusâ, anfractibus convexis, ciliâ, ultimo anfractu ovato, aperturâ semiovali, intus castaneâ, plicâ columellari elevatâ, tenui, obliquâ.*

THE STRIPED PHYSA. Shell small, ovate, polished, yellowish-fulvous striped with white; spire rather short, obtuse, whorls rather convex; last whorl ovate; aperture somewhat chestnut within, somewhat oval elevated, thin, oblique.

Hab. Mexico.

Species 49. (Fig. a, b, Mus. Brit.)

PHYSA TRILUCIDA. *Phy. testâ parvâ, foveâ obovataâ, transversâ, angustâ, transversâ; spirâ brevi; ultimo anfractu subcylindrico; aperturâ elongatâ, angustâ, plicâ columellari tenui, breviter tortuosâ.*

THE WHISKY PHYSA. Shell small, smoky-amber, translucent, narrow, very thin; spire short; last whorl subcylindrical; aperture elongated, narrow, columellar fold thin, slightly tortuous.

Hab. California.

The smallest of the species! Narrow and very transparent.

Species 50. (Fig. a, b, Mus. Brit.)

PHYSA CUBENSIS. *Phy. testâ parvâ, subulâ, pallidâ fulvâ; spirâ breviusculâ, acuminatâ, anfractibus brevibus, subangulatis; ultimo anfractu subcylindrico, medio se contracto, subangulato; aperturâ oblongâ, marginâ rectiusculâ, plicâ columellari convexâ.*

THE CUBAN PHYSA. Shell small, solid, pale-fulvous, spire rather short, acuminate, whorls short, slightly angular; last whorl subcylindrical, a little constricted in the middle, slightly wrinkled; aperture oblong, margin rather straight, columellar fold conspicuous.

PHYSÆLÆ. ———!
Hab. Cuba.

Species 51. (Fig. a, b, Mus. Sowerby.)

PHYSA RIMBA. *Phy. ovato-subcylindricâ, fusco-olivaceâ, solidiusculâ; spirâ elevatâ, longitudine aperturam æquantâ, anfractibus latis, gibbosis, medio subcompressis; ultimo anfractu breviter subcylindrico, aperturâ breviusculâ, intus fusco-purpureâ, labio elevato posticâ sinuâtin productâ, anticâ sinuâtin emarginatâ; columellâ duplicatâ.*

THE BAY PHYSA. Shell ovate-subcylindrical, olive-brown, rather solid; spire elevated, equalling aperture in length; whorls broad, gibbous, compressed in the middle; last whorl shortly cylindrical; aperture rather short, purplish-brown within, outer lip posteriorly sinuously produced, anteriorly sinuously emarginated; columella double-plaited.

ADAMS and ANGAS. Proc. Zool. Soc., 1863, p. 416.
Hab. A tributary to Adelaide river in Arnhem's Land.

Species 52. (Mus. Brit.)

PHYSA SAVA. *Phy. testâ ovatâ, politissimâ, pallidâ fulvâ, ruco suffusâ; spirâ breviter conicâ, anfractibus brevibus; ultimo anfractu ovato; aperturâ sinuâtin, oblongâ, anticâ angustâ, columellâ retrorsâ tortuosâ.*

SAY'S PHYSA. Shell ovate, much polished, pale fulvous, suffused with pink; spire shortly conical, whorls short; last whorl ovate; aperture semiovate, oblong, anteriorly narrowed; columella twisted backwards.

GRAY. —? Mus. Brit.

Hab. Hudson's River, North America.

Probably a comparison has been made between this species and *Physa aggrina* of Say. It is more obese and less acuminate, and tapers slightly towards the anterior termination.

Species 53. (Mus. Brit.)

PHYSA ALGOSIENSIS. *Phy. testâ ovato-subglobosâ, tenuissimâ, pallidè succinçâ, hyalinâ, translucentâ, anticè subattenuatâ; spirâ brevî, anfractibus parvis; ultimo anfractu inflato, brevi, plicâ columellari brevi.*

THE ALGOSIA PHYSA. Shell ovately-subglobose, very thin, pale amber, hyaline, translucent, anteriorly slightly attenuated; spire short, whorls small; last whorl inflated, short, columellar fold short.

MOBILLET. —?

Hab. Damara Land, Algoa.

Species 54. (Mus. Sowerby.)

PHYSA TONGANA. *Phy. testâ fusco-olivaceâ, levigatâ, fusiformi; spirâ productâ, eleganter acuminatâ; anfractibus obliquè declivibus, subangulatis; ultimo anfractu inflato, superuè subangulato, infra subattenuato; apertura spiram longitudine superanti, posticè subangulata, anticè acuminato, columellâ firè buplicatâ.*

THE TONGA PHYSA. Shell olive-brown, smooth, fusiform; spire produced, elegantly acuminate; whorls obliquely sloped, somewhat angular; last

whorl inflated, slightly angular above, a little attenuated below; aperture longer than the spire, posteriorly slightly angular, anteriorly acuminate, columella nearly double-plaited.

COOY. Voyage de l'Astrolabe, Pl. LVIII., fig. 19, 20.

Hab. Australia.

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

PHYSA SINUATA. *Phy. testâ parvâ, subfusiformi, fusco-ferrugineâ; spirâ productâ, acuminatâ, anfractibus parvis, gibbosis; ultimo anfractu subovato; apertura intus pallidè purpureâ, labio externo sinuato; plicâ columellari parvâ, altâ.*

THE SINUATED PHYSA. Shell small, subfusiform, ferruginous-brown; spire produced, acuminate; whorls small, gibbous; last whorl rather ovate; aperture pale purple within, outer lip sinuous; columellar fold small, raised.

GOULD. Expedition shells.

Hab. New South Wales.

Species 56. (Mus. Brit.)

PHYSA BEEICULATA. *Phy. testâ subpyramidatâ, gravî, fumoso-corneâ, concentricè et spiralerè striatâ; spirâ clavatâ, acuminatâ, anfractibus obliquè declivibus, prominentibus; ultimo anfractu obliquo, anticè subinflato, posticè subattenuato; apertura subpyramidatâ, intus pallidè curvo.*

THE RETICULATED PHYSA. Shell rather pyramidal, smooth, smoky-horn-coloured, concentrically and spirally striated; spire clavate, acuminate, whorls obliquely sloped; prominent; last whorl oblique, anteriorly slightly inflated, posteriorly subattenuated; aperture subpyramidal, pale golden within.

GOULD. —?

Hab. Sandwich Islands.



PHYSA.

PLATE VIII.

Species 57. (Mus. Brit.)

PHYS. VANDERWALDEI. *Phys. testis ovali, bipoliatâ, cæcis, subangulatis, aperturâ penultimâ, subangulatis.* Shell elongated, rather sigmoid, rather smooth, whorls six, oblique; last whorl convex, angular, sides a little straight; aperture apical, small, penultimate rather strongly emarginate, last whorl rather strongly emarginate, turned backwards.

VAN DER WALDE. *Phys. testis ovali, rather sigmoid, smoky brown, aperture short, whorls six, oblique; last whorl convex, angular, sides a little straight; aperture apical, small, penultimate rather strongly emarginate, last whorl rather strongly emarginate, turned backwards.*

SOWERBY.

Hab. Van Diemen's Land.

Of a rather species of *Physa*, the specimens presents an angular aperture, and a last whorl not in the centre. It is, however, only a specimen, and I presume that the angularity appears from the age.

Species 58. (Mus. Brit.)

PHYS. WALLERII. *Phys. testis elongatâ, turrâ, cæcis, spirâ clavata, angulatis, penultimâ, cæcis, inflexâ, ultimo subovata, lateribus petiolâtes, aperturâ parvâ, obliquâ; plati columellari prominenti, tortuâ.*

WALLER. *Physa.* Shell elongated, turreted, pale; spire elevated, whorls five rather convex, last whorl a little oval, sides a little straight; aperture small, oblong; columellar plait prominent, tortuous.

SOWERBY.

Hab. River Nile, Egypt.

Species 59. (Mus. Taylor.)

PHYS. ACIFLATA. *Phys. testis elongatâ, pyramidatâ, attenuatâ, foveoso-cornuâ, scapellucâ; spirâ*

clavata, subangulâ, angulatis, cæcis, obliquis; ultimo angulatis, subangulatis; aperturâ hexiâsculâ, columellâ cæcis, albâ, retrorsâ.

THE SLIGHTLY-SHARPE PHYSA. Shell elongated, pyramidal, attenuated, smoky-brown, semipellucid; spire elevated, acuminate, whorls six, oblique; last whorl rather fusiform; aperture rather short, columella tortuous, whitish, turned backwards.

SOWERBY.

Hab. New South Wales.

Species 60. (Fig. a, b, Mus. Sowerby.)

PHYS. BURSA. *Phys. testis acuta, rotundâ, levigatâ, pulchâ, pulvâ, foveis longitudinalibus cæcis costatis, acuta; spirâ hexiâsculâ, obtusa, angulata penultimâ tumida; ultimo angulata oblonga; aperturâ rotundâ costatâ marginatâ.*

THE BURSA PHYSA. Shell ovate, solid, smooth, pale fulvous, marked with rare longitudinal chestnut bands; spire rather short, obtuse, penultimate whorl tumid; last whorl oblong; aperture chestnut, beveled within.

MORILL. *Journal de Conchyliologie*, vol. xvi. f. 325.

Hab. Angola and Benguela.

Species 61. (Mus. Taylor.)

PHYS. SUBRUNDATA. *Phys. testis fusco-olivaceâ, concentricâ, concentricâ leviter undulatâ; spirâ brevisculâ, apice acuminatâ, angulata penultimâ lato, subangulatâ; ultimo angulata angulo, prope suturam tumida, rotundatam angulatâ; aperturâ marginâ, intus prope marginem costatâ strigatâ; plati columellari cæcisculâ, tortuâ.*

THE SLIGHTLY-WAVED PHYSA. Shell olive-brown, ventricose, concentrically slightly undulated; spire rather short, apex acuminate, penultimate whorl broad, rather angular, last whorl large, swelled

near the suture, roundly angular; aperture large, striped with chestnut within near the border; columellar fold rather thick, tortuous.

SOWBEEY.

Hab. St. Margaret's, South Australia.

Species 62. (Mus. Brit.)

PHYSA PYRAMIDATA. *Phy. testâ solidâ, subovato-fusâ, pyramidalâ, spirâ productâ, anfractibus ser. obliquis, supra attenuatis, infra inflatis; ultimo anfractu verrucoso, subfusiformi; aperturâ auriformâ, labiâ interno crassiuscula, pliegâ columellari elevata.*

THE PYRAMIDAL PHYSA. Shell solid, rather golden-brown, pyramidal, spire produced, whorls six, oblique, attenuated above, inflated beneath; last whorl ventricose, rather fusiform; aperture auriform, inner lip rather thick, columellar fold elevated.

SOWBEEY.

Hab. Australia.

A shell of graceful form resembling in the slope of the whorls *Limata stagnalis*, which are too oblique and attenuated for the most aberrant form of *Physa longana*.

Species 63. (Mus. Brit.)

PHYSA AMYGDALAS. *Phy. testâ magis oblongâ, ovatâ, solidâ, levigatâ convexo-fusâ; spirâ breviusculâ, anfractibus paucis, inflatis; ultimo anfractu ovato, posticâ subtruncato, anticâ magis inflato; aperturâ magis, intus subovoidi, semipellucidâ, castaneo fuscatâ; labiâ interno flexuoso, labiâ interno pallido, lat. v. gl. in, pliegâ columellari crassa, verticibus.*

THE ALMOND PHYSA. Shell large, oblong, ovate, solid, smooth horny-brown; spire rather short, whorls few, inflated; last whorl ovate, posteriorly slightly attenuated, anteriorly more inflated; aperture large, rather golden within, semipellucid, banded with chestnut; outer lip flexuous, inner lip pale, broadly reflected; columellar fold thick, rather straight.

SOWBEEY.

Hab. Texas, North America.

One specimen of this fine species is preserved in the British Museum.

Species 64. (Mus. Orbigny in Brit.)

PHYSA STIGATA. *Phy. testâ parvâ, ovatâ, tenui, corââ, minutissimè concentricè radiatimque striatâ, spirâ brevi, acuminatâ, ultimo anfractu ovato; aperturâ magis, pliegâ columellari inconspicuâ.*

THE STIGATED PHYSA. Shell small, ovate, thin, horny, very finely concentrically and radiately striated, spire short, acuminate, last whorl ovate; aperture large, columellar fold not conspicuous.

D'ORBIGNY. *Mollusca of Cuba*, p. 192, Pl. XIII, f. 11-16.

Hab. Cuba.

A lens is required to see the striation in both directions which characterizes this little species.

Species 65. (Mus. Brit.)

PHYSA VITREÆ. *Phy. testâ tenui, albâ, translucidâ, fusiformi, vitreâ; spirâ subelevatâ, obtusâ, anfractibus paucis, inflatis; ultimo anfractu oblongo; aperturâ semi-ovata; pliegâ columellari rectiusculâ.*

THE GLASSY PHYSA. Shell thin, whitish, translucent, fusiform, glassy; spire a little elevated, obtuse, whorls few, inflated; last whorl oblong; aperture semi-ovate; columellar plait rather straight.

PATREYS. —?

Hab. Lake Marcotis, Egypt.

Species 66. (Mus. Taylor)

PHYSA DISPAR. *Phy. testâ fusiformi, acuminatâ, tenuiter sinuatim rugatâ, in partibus fusco-rufo-ovatis, in partibus stramineâ; spirâ productâ, attenuatâ, apicè acuminatâ; anfractibus obliquis, attenuatis; ultimo anfractu oblongo, aperturâ anticè attenuatâ, pliegâ columellari haud prominenti, viz. arcuatâ.*

THE DISSIMILAR PHYSA. Shell fusiform, acuminate, finely sinuously wrinkled, in parts reddish-brown, in parts straw-coloured; spire produced, attenuated, apex acuminate; whorls oblique, attenuated; last whorl oblong, aperture anteriorly attenuated, columellar fold not prominent, scarcely arched.

SOWBEEY.

Hab. Sydney, New South Wales.

This form does not appear to have been hitherto described.



Species 72. (Fig. *a, b*. Mus. —? Copied.)

PHYSA DISTORTA. *Phy. testâ parvâ, pallidâ cornâ, subovatâ, spirâ brevi, anfractibus duobus aut tribus, penultimo inflato, subquadrato; ultimo anfracta subcylindrico, prope suturam tumido, subangulato; columellâ latâ, leviter arcuatâ.*

THE DISTORTED PHYSA. Shell small, pale horn, subovate, spire short, whorls two or three, the penultimate inflated, subquadrate; last whorl subcylindrical, tumid, subangular near the suture; columella broad, slightly arched.

HALLÉMAN. *Physide*, p. 35, Pl. V. f. 1-3.

Hab. North America.

Species 73. (Mus. Brit.)

PHYSA ELLIPTICA. *Phy. testâ elongato-subovatâ, fusco-subolivacea; posticâ subattenuatâ; spirâ productâ, conicâ; aperturâ intus curvâ, prope marginem costano fasciatâ; labio interno pallidâ, albo marginato, columellâ crassâ, plâi inconspiciâ.*

THE ELLIPTICAL PHYSA. Shell elongate, subovate, rather olive-brown; posteriorly subattenuated; spire produced, acuminated; aperture golden within, banded with chestnut near the margin; inner lip pale, white-edged, columella thick, plait inconspicuous.

LEA. *Ann. Phil. Soc.*, vol. v. Pl. XIX. f. 83.

Hab. Indiana.

Not sharply mucronate in the spire as is the case with *Physa gyriua* of Say.

Species 74. (Mus. Brit.)

PHYSA VENTERIOSA. *Phy. testâ ovatâ, politâ, ventricosâ, succinâ; spirâ breviusculâ, acuminatâ; ultimo anfracta ovato; aperturâ magnâ; columellâ rectiusculâ, plâi inconspiciâ.*

THE VENTERIOSE PHYSA. Shell ovate, polished, ventricose, amber; spire rather short, acuminated; last whorl ovate; aperture large; columella rather straight, plait inconspicuous.

GUILDIS. *Zool. Journ.*

Hab. St. Vincent's, West Indies.

Species 75. (Mus. —? New York.)

PHYSA CYLINDRICA. *Phy. testâ oblongâ, cylindricâ, solidâ, pallidâ rubro-fuscâ; spirâ brevi, conicâ; ultimo anfracta oblongo, angustâ, rectiusculo; aperturâ elongatâ, labio externo rectiusculo, prope marginem costano fasciatâ; labio interno pallidâ, columellâ crassâ, subplanulatâ, rectiusculâ.*

THE CYLINDRICAL PHYSA. Shell oblong, cylindrical, solid, pale red-brown; spire short, conical; last whorl oblong, narrow, rather straight; aperture elongated, outer lip rather straight, banded with chestnut near the margin; inner lip pale, columella thick, rather flat, rather straight.

DE KAY. *Shells of United States.*

Hab. Red Creek, Indiana.

Species 76. (Mus. Brit.)

PHYSA FUSCA. *Phy. testâ parvâ, subovatâ, nitidâ, fuscatâ, semipellucidâ; spirâ productâ, acuminatâ, anfractibus subcontundis; ultimo anfracta amplo, aperturâ subauriformâ; columellâ leviter arcuatâ.*

THE BROWN PHYSA. Shell small, subovate, shining, brown, semipellucid; spire produced, acuminated, whorls rather round; last whorl full, aperture somewhat auriform; columella slightly curved.

ROSASLER. —?

Hab. River Mazarin.

Species 77. (Mus. Brit.)

PHYSA BENGUELENSIS. *Phy. testâ fusiformâ, utrinque acuminatâ, pallidâ, leviter rugatâ; spirâ aperturam longitudine superantâ, acuminatâ; anfractibus tribus, obliquis, convexis; aperturâ anticâ subattenuatâ.*

THE BENGUELA PHYSA. Shell fusiform, acuminated; at both ends pale, lightly wrinkled; spire exceeding aperture in length, acuminated; whorls three, oblique, convex; aperture a little attenuated anteriorly.

SOWERBY.

Hab. Benguela, Egypt.



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P H Y S A.

PLATE X.

Species 78. (Mus. Brit.)

PHYSA MEXICANA. *Phy. testâ parvâ, subcylindricâ, luteâ, rotâ, umbilicâ, spirâ pallidâ, spirâ scalatâ, anfractibus tubis, succinosis, ultimo versus saturatam turbidâ, subâ scalatâ, aperturâ obliquâ, spirâ uniglobosâ, anticeâ, brevissimâ.*

THE MEXICAN PHYSA. Shell small, subcylindrical, smooth, whitish, somewhat spire in steps, whorls three, rather square, the last round, angular near the summit; aperture oblong, angular above, columella rather straight.

SOWERBY.

Hab. River Marotis, Egypt.

Species 79. (Mus. Brit.)

PHYSA NATALENSIS. *Phy. testâ subglobosâ, pallidâ, conicâ, luteâ, rotâ, succinosis, spirâ brevissimâ; ultimo anfractu inflato, superioribus angulato, postcolumellâ excavato; aperturâ unguatâ, posticâ subangulatâ, anticâ subarcuata.*

THE NATAL PHYSA. Shell subglobose, pale-brown, smooth, semi-pellucid, spire very short; last whorl inflated, slightly angular above, excavated behind the columella; aperture large, posteriorly somewhat angular, anteriorly slightly acuminate.

KRAUSS. Sudafrikanischen Mollusken, p. 84, Tab. V. f. 10.

Hab. Natal, in stagnant pools.

Species 80. (Mus. — ? Copied.)

PHYSA MICROSTOMA. *Phy. testâ parvâ, ovatâ, levigatâ, albâ; spirâ aperturam longitudinali fere æquantî; aperturâ angustâ, columellâ crassâ, leviter bi-dentatâ.*

THE SMALL-MOUTHED PHYSA. Shell small, ovate, smooth, white; spire nearly equalling the aperture in

length; aperture narrow, columella thick, slightly bidentate.

HALDAMAN. Monograph, Physidae, p. 35, Pl. V. f. 10. *Hab.* North America.

On the inner edge of the columella in this species are two small tooth-like projections.

Species 81. (Mus. — ? Copied.)

PHYSA DIAPHANA. *Phy. testâ parvâ, vitreâ, subglobosâ; spirâ brevi, anfractibus paucis, distinctis, tumidis; ultimo anfractu inflato; aperturâ semiovatâ; columellâ vix arcuatâ.*

THE DIAPHANOUS PHYSA. Shell small, glassy, subglobose; spire short, whorls few, distinct, tumid; last whorl inflated; aperture semiovate; columella scarcely arched.

KRAUSS. Sudafrikanischen Mollusken, p. 84, Tab. V. f. 11.

Hab. Ungani valley, Natal.

A very small transparent species.

Species 82. (Mus. Brit.)

PHYSA NERITOIDEA. *Phy. testâ parvâ, solidâ, obliquè subglobosâ, succineo-rufo-secatâ, strigis albidis notatâ, spirâ brevi, obtusâ, anfractibus duobus, brevibus, ultimo anfractu inflato, anticè obliquè expanso; aperturâ subpyriformi; labio externo anticè obliquè protracto; columellâ latâ, complanatâ, pluvâ tortuâ, conspicuâ.*

THE NERITA-SHAPED PHYSA. Shell small, solid, obliquely subglobose, reddish amber, marked with white stripes, spire short, obtuse, whorls two, short, last whorl inflated, anteriorly obliquely expanded,

aperture subquyiform; outer lip anteriorly obliquely produced; columella broad, flattened, plait tortuous, conspicuous.

SOWERBY.

Hab. ———?

A little shell of very curious form, with very broad conspicuous plait.

Species 83. (Mus. Brit.)

PHYSA TERREBA. *Phy. testâ attenuatâ, albâ, vitreâ, laevigatâ; spirâ productâ, acuminatâ, anfractibus laxatis, subdistinctibus, subplanulatis, per obliquis, apertura oblongâ, angustâ, reticulatâ.*

THE TERREBA PHYSA. Shell attenuated, white, glassy, smooth; spire produced, acuminated, whorls loosened, rather distant, a little flattened, very oblique, aperture oblong, narrow, rather straight.

BENSON. *Campylœras terreba.*

Hab. Morulabad, India.

Singularly contrasting in form with the preceding species, *Physo aciculata*. The whorls are quite separated.

Species 84. (Mus. ———? Copied.)

PHYSA GILLIANY. *Ph. testâ subrotundâ, cono-circoscantâ, spirâ brevissimâ; anfractibus subnormalis, paucis, subrotundis, elevatis, subulatis; ultimo anfractu subcylindrico, postice subattenuato, apertura oblongâ; labio externo flexuoso, postice producto; columellâ brevî, plââ conspicuâ.*

GILLIANY'S PHYSA. Shell subovate, cinerous-horny, spire very short; whorls subangular, slightly canaliculated near the suture; last whorl subcylindrical, posteriorly a little attenuated, aperture oblong; outer lip flexuous, posteriorly produced; columella tortuous, plait conspicuous.

CROSE ET MALH. *Journal de Conchyliologie*, vol. vi.

Hab. Roper's Lake, New Caledonia.

Species 85. (Mus. Taylor.)

PHYSA TENUSIBIATA. *Phy. testâ subcylindricâ, olivaceo-juscâ, tenuiter spirâliter concentricèque striatâ;*

spirâ brevissimâ, anfractibus subangulatis, penultimo perobliquè, apice acuminato; apertura intus costatâ, antice subacuminatâ.

THE FINE-STRIATED PHYSA. Shell subcylindrical, olive-brown, finely spirally and concentrically striated; spire rather short, whorls slightly angular, the penultimate very oblique, apex acuminated; aperture chestnut within, anteriorly a little acuminated.

SOWERBY.

Hab. River Torrens, South Australia.

The decussated texture of this species is peculiar.

Species 86. (Mus. ———? Copied.)

PHYSA CASTANEA. *Phy. testâ brevis, solidâ, inflatâ, costatâ, laevigatâ, lineis nigricantibus striatâ; spirâ brevî, anfractibus paucis, brevibus, angulatis; ultimo anfractu magno, subcylindricâ; plicâ columellari prominenti.*

THE CHESTNUT PHYSA. Shell short, solid, inflated, chestnut-coloured, smooth, striped with blackish lines; spire short, whorls few, short, angular; last whorl large, subcylindrical; columellar fold prominent.

SOWERBY. *Genera of Shells*, Lymnæa, Pl. H.

Hab. Australia.

Species 87. (Mus. Brit.)

PHYSA SCABROTANDA. *Phy. testâ parvâ, pallidâ, fulcâ, scabrotandâ; spirâ brevissimâ, anfractu unico rotundo, ultimo anfractu magno, inflatâ; apertura magno; plicâ columellari retrorsâ, turtâ.*

THE ROUNDISH PHYSA. Shell small, pale-fulvous, semiglobose; spire very short, with a single rounded whorl, last whorl large, inflated; aperture large; columella turned back, tortuous.

SOWERBY.

Hab. North America.

The writer could not find any description or figure applicable to this shell.



76



88²



88¹



89



89²



89¹



90



91⁰



91¹



92

medians distinctis, versus suturam tumidis, apicalibus parvis; ultimo anfractu inflato, superae subgibbosa, antice attenuata, acuminata; columella tenuissimâ, plievâ conspicuâ, elevata.

THE PUNCTURED PHYSA. Shell very thin, olive-brown, obliquely subovate, very finely punctured in striae; spire produced, acuminated, middle whorls distinct, tumid towards the suture, those of the apex small; last whorl inflated, rather gibbous above, attenuated in front, acuminated; columella very thin, plait conspicuous, elevated.

SoWERBY.

Hab. Australia.

Species 92. (Fig. a, b, Mus. Brit.)

PHYSA CONIORTA. *Phy. testâ parvâ, cornuâ, brevâ, inflatâ; spirâ brevi, acuminatâ, anfractibus parvis, distinctis; ultimo anfractu brevi, lato, subcylindrico; apertura angustâ, rectiusculâ, plievâ columellari inconspicuâ.*

THE CONIORTED PHYSA. Shell small, horny, short, inflated; spire short, acuminated, whorls few, distinct; last whorl short, broad, somewhat cylindrical; aperture narrow, rather straight, columella fold inconspicuous.

MICHAUD — ?

Hab. Cape of Good Hope.



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Species 97. (Mus. Sowerby.)

PHYSA BULLATA. *Phy. testâ majuscule, tenuissimâ, fusco-cornuâ, distanter fusco fasciatâ, orato-inflatâ; rostris tenuibus longitudinalibus leviter undulatâ; spirâ brevi, anfractibus apicalibus minutis, penultimo brevi, inflato; ultimo inflato, superne gibboso, anticè subattenuato; apertura elongatâ, suboviformi; columellâ tortuâ, plicâ tenui, prominente.*

THE BUBBLE PHYSA. Shell rather large, rather thin, horny-brown, distantly banded with brown; ovate-inflated, lightly undulated with fine longitudinal wrinkles; spire short, apical whorls minute, penultimate inflated, last inflated, gibbous above, rather attenuated anteriorly; aperture elongated, somewhat auriform; columella tortuous, fold thin, prominent.

SOWERBY.

Hab. South Australia.

Physo castanea is a much more solid and angular shell than this.

Species 98. (Fig. a, b, Mus. Legrand.)

PHYSA NITIDA. *Phy. testâ parvâ, sulcosiformi, pallidè fuscâ, lavigatâ, obliquâ; spirâ breviusculâ, anfractibus apicalibus aramatis, parvis, penultimo inflato; ultimo anfractu orato, tenuiusculo, anticè rotundo; apertura oratâ, columellâ tortuâ, plicâ inconspicuâ.*

THE SLAT PHYSA. Shell small, subfusiform, pale fulvous, smooth, oblique; spire rather short, apical whorls acuminate, small, the penultimate inflated; last whorl ovate, rather tumid, anteriorly rounded; aperture ovate, columella tortuous, plait inconspicuous.

SOWERBY.

Hab. In creeks of South-east Tasmania.

Species 99. (Fig. a, b, Mus. Legrand.)

PHYSA BRUNNIENSIS. *Phy. testâ parvâ, oblongâ, angustâ, pellucidâ, nitidâ; spirâ breviusculâ, anfractibus tribus, distinctis, propè suturam gibbosis, ultimo oblongo; apertura angustiusculâ, columellâ tenuissimâ, plicâ inconspicuâ.*

THE BRUNNI ISLAND PHYSA. Shell small, oblong, narrow, pellucid shining; spire rather short, whorls three, distinct, gibbous near the suture, the last oblong; aperture rather narrow, columella very thin, plait inconspicuous.

SOWERBY.

Hab. Brunni Island, Australia.

I am not aware of this pretty little species having been named before.

Species 100. (Mus. Sowerby.)

PHYSA DUBLICATA. *Phy. testâ solidâ, castaneâ, breviusculâ; spirâ acuminatâ, anfractibus obliquis, declivibus, ultimo inflato, breviusculo; apertura suborata, quam spirâ longiori; labio externo sinuato; columellâ rectiusculâ, incrassatâ, plicâ duplicatâ.*

THE DOUBLE-PLATED PHYSA. Shell solid, chestnut, rather short; spire acuminate, whorls oblique, sloped, the last inflated, rather short; aperture subovate, longer than the spire; outer lip sinuated; columella rather straight, thickened, with a double plait.

SOWERBY.

Hab. Wide Bay, Australia.

P H Y S A.

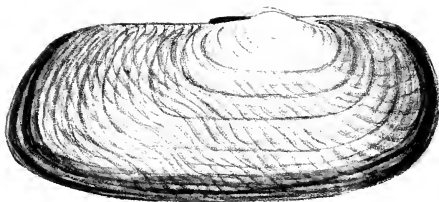
	Plate	Species		Plate	Species
<i>acrotata</i> , <i>Sarsby</i>	VIII.	59	<i>albosa</i> , <i>Goult</i>	IV.	27
<i>acromata</i> , <i>Goult</i>	III.	23	<i>granulata</i> , <i>Shuttleworth</i>	V.	39
<i>acuta</i> , <i>Despiauvel</i>	II.	8	<i>Gulliani</i> , <i>Cross et Marie</i>	X.	84
<i>Africanus</i> , <i>Adams</i>	I.	2	<i>gyrina</i> , <i>Say</i>	V.	36
<i>Africanus</i> , <i>Kearse</i>	I.	2	<i>heterostropha</i> , <i>Say</i>	VI.	45
<i>Algonicus</i> , <i>Mordt</i>	VII.	53	<i>Heldrethiana</i> , <i>Lea</i>	II.	9
<i>Albens</i> , <i>Bois</i>	I.	6	<i>humerosa</i> , <i>Goult</i>	VI.	41
<i>amylifidus</i> , <i>Sarsby</i>	VIII.	63	<i>hyporum</i> , <i>Linnaeus</i>	I.	7
<i>ameibana</i> , <i>Sarsby</i>	I.	3	(And Fig. 7 b, c, Pl. XI.)		
<i>antipoda</i> , <i>Sarsby</i>	V.	37	<i>inclata</i> , <i>Adams and Angus</i>	I.	4
<i>aperta</i> , <i>Sarsby</i>	XI.	88	<i>inclavata</i> , <i>Mordt</i>	II.	16
<i>attenuata</i> , <i>Sarsby</i>	XII.	91	<i>intesta</i> , <i>Haldeman</i>	III.	19
<i>aurantia</i> , ———	II.	13	<i>Julesii</i> , <i>A. Adams</i>	IX.	71
<i>auriculata</i> , <i>Cross et Marie</i>	XI.	67	<i>Kanakana</i> , <i>Cross et Marie</i>	IX.	68
(And Fig. 67 b, Pl. XII.)			<i>laticiliata</i> , <i>Sarsby</i>	V.	33
<i>badia</i> , <i>Adams and Angus</i>	VII.	54	<i>Lordi</i> , <i>Bois</i>	IV.	28
<i>Benguelensis</i> , <i>Sarsby</i>	IX.	77	<i>lucida</i> , <i>H. Adams</i>	IV.	32
<i>bonus</i> <i>H. Adams</i> , <i>Adams and Angus</i>	V.	38	<i>maculata</i> , <i>Sarsby</i>	XI.	90
<i>Brunneusis</i> , <i>Sarsby</i>	XII.	99	<i>Marstoni</i> , <i>Sarsby</i>	X.	78
<i>bullata</i> , <i>Sarsby</i>	XII.	97	<i>Margaria</i> , <i>Gray</i>	II.	11
<i>Californica</i> , <i>Mordt</i>	IX.	69	<i>microstoma</i> , <i>Haldeman</i>	X.	80
<i>carinata</i> , <i>H. Adams</i>	III.	18	<i>Natalensis</i> , <i>Kearse</i>	X.	79
<i>castanea</i> , <i>Sarsby</i>	X.	86	<i>neoholida</i> , <i>Sarsby</i>	X.	82
<i>concinna</i> , <i>Adams and Angus</i>	V.	35	<i>Newcombi</i> , <i>Adams and Angus</i>	III.	21
<i>contorta</i> , <i>Mordt</i>	XI.	92	<i>nitida</i> , <i>Sarsby</i>	XII.	98
<i>Cubensis</i> , <i>Puffin</i>	VII.	50	<i>Novae Hollandiae</i> , <i>Blainville</i>	II.	10
<i>Cuningii</i> , <i>H. Adams</i>	VI.	41	<i>Novae Zelandiae</i> , <i>Gray</i>	IV.	29
<i>cylindrica</i> , <i>De Kay</i>	IX.	75	<i>obsca</i> , <i>H. Adams</i>	III.	24
<i>diaphana</i> , <i>Kearse</i>	X.	81	<i>olivacea</i> , <i>Adams and Rees</i>	V.	34
<i>dispar</i> , <i>Sarsby</i>	VIII.	66	<i>opipyracea</i> , <i>Sarsby</i>	XII.	96
<i>distorta</i> , <i>Haldeman</i>	IX.	72	<i>Peruviana</i> , <i>Gray</i>	II.	12
<i>duplicata</i> , <i>Sarsby</i>	XII.	100	<i>pinguis</i> , <i>Sarsby</i>	XII.	93
<i>eburnea</i> , <i>Sarsby</i>	XI.	89	<i>plicata</i> , <i>De Kay</i>	IX.	70
<i>elliptica</i> , <i>Lea</i>	IX.	73	<i>protusis</i> , <i>Sarsby</i>	VI.	43
<i>elongata</i> , <i>Say</i>	IV.	30	<i>puncturata</i> , <i>Sarsby</i>	XI.	91
<i>feruginea</i> , <i>Adams and Angus</i>	IV.	25	<i>pyramidata</i> , <i>Sarsby</i>	VIII.	62
<i>fouitidis</i> , <i>Linnaeus</i>	I.	1	<i>Reesii</i> , <i>Adams and Angus</i>	VI.	40
<i>fragilis</i> , <i>Migdale</i>	IV.	26	<i>reticulata</i> , <i>Goult</i>	VII.	56
<i>fusca</i> , <i>Rossmasser</i>	IX.	76	<i>rividis</i> , <i>Sarsby</i>	IV.	31

PHYSA.

	Plate.	Species.		Plate.	Species.
Salleana, Pfeiffer	III.	22	terebra, Benson	X.	83
Sayi, Gray	VII.	52	tetrica, Morelet	VIII.	60
semiglobosa, Westerlund	VI.	42	texurata, Sowerby	XII.	95
sinuata, Gould	VII.	55	Tongana, Quoy	VII.	54
solida, Philippi	II.	14	triticea, Lea	VII.	49
Sowerbyana, Orbigny	VI.	47	tropica, Krauss	V.	32*
spiculata, Morelet	VI.	46	truncata, H. Adams	III.	20
striata, Orbigny	VIII.	61	Vandiemensis, Sowerby	VIII.	57
subinflata, Sowerby	I.	5	ventricosa, Gudding	IX.	74
subrotunda, Sowerby	X.	87	vinosa, Gould	II.	15
subundata, Sowerby	VIII.	61	virgata, Gould	VII.	43
tabulata, Gould	III.	17	vitrea, Parreys	VIII.	65
tenuistriata, Sowerby	X.	85	Walbergii, Sowerby	VIII.	58

MONOGRAPH
OF THE GENUS
SOLECURTUS.

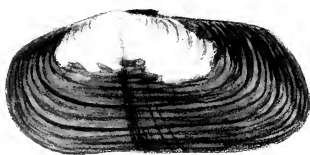
"For the dear God, who loveth us,
He made and loveth all."—*Coleridge.*



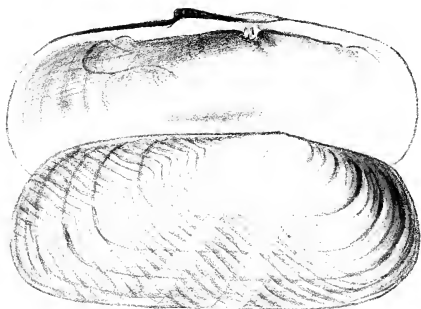
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4

SOLECURTUS.

PLATE I.

Genus SOLECURTUS, *Blainville*.

Testa transversè oblonga, biminuscula, utriusque truncata, hians; medio planulato, umbonibus centralibus vel subcentralibus. Impressio pallii latè sinuata, ligamentum externum. Dentes cardinalis uncinati.

Shell transversely oblong, biminuscular, truncated and gaping at each end; flattened in the middle, with central or subcentral umbones. Palled impression broadly sinuous. Ligament external, cardinal teeth hooked.

Our *Soleurti* will be found to include the genera *Macha*, *Phacelia*, *Siliperia*, and *Norsaculna* of modern authors; so that, with the exception of *Phacela*, all the *Soleurti* are divided into, first, *SOLEX* proper, with the umbones terminal; second, *CUTELLE*, with the umbones much one-sided, although not terminal; and third, *SOLECURTUS*, with umbones central, or nearly central. And this distribution by the position of the hinge is pretty generally concurrent with other characters of the shells. The geographical distribution of these, like that of other *Soleurti*, does not appear to be guided by any general rule. We have a couple of species on our own coast; *Norsaculna* is found in the mud of Indian and Chinese rivers. North and South America, Africa and Australia, contribute each a few species.

Species 1. (Mus. Brit.)

SOLECURTUS INVARIUS. *Sol. testâ rhomboïdâ, albâ, sulcis distinctibus, obliquis, dicaricatis sculptâ; margine d. recto, umbonibus haud prominentibus. Latere antico breviusculo, ad terminum dorsalem emutato; latere postico elongato, ad terminum obliquè truncato; margine centrali subconvexo.*

THE FLATTERED SOLECURTUS. Shell rhomboidal, white, sculptured with distant, oblique, diverging

grooves; dorsal margin straight, umbones not prominent; anterior side rather short, cornered at the end; posterior side elongated, obliquely truncated at the end; ventral margin a little convex.

PHILIPPI. Abbildungen, &c.

Hab. China.

A white shell of more angular form than *S. strigilatus*.

Species 2. (Mus. Brit.)

SOLECURTUS ORBANGENS. *Sol. testâ transversè elongatâ, albâ, concentricè rugatâ, anticè obscure sulcis numerosis obliquis, dicaricatis sculptâ, medio planulato, sulco complanato impresso; latere antico breviusculo, subacuminato; latere postico elongato, ad terminum subtruncato, margine dorsali subexcavato, margine centrali recto.*

THE OBLONG SOLECURTUS. Shell transversely elongated, white, concentrically wrinkled, anteriorly obscurely sculptured with numerous oblique diverging sulci, flattened in the middle, impressed with a flattened sulcus; anterior side rather short, rather acuminated; posterior side elongated, rather rounded at the end, with dorsal margin a little hollowed, ventral margin straight.

DORRIS. Proc. Zool. Soc., 1841.

Hab. Isl. Luzon.

Much narrower than *Soleurtus Schepmancheri*, with dorsal margin excavated, and posterior side more produced.

Species 3. (Mus. Brit.)

SOLECURTUS SOLIDUS. *Sol. testâ subrhomboidâ, oblongâ, albâ, epidermide fasciâ, rugatâ indatâ; latere antico breviusculo, subattenuato, margine dorsali decurvo, margine centrali auctivo; medio planulato, sulco contracto, sulco impresso; latere postico rugato.*

November, 1871.

SOLECURTUS.—PLATE I.

obtusè angulato, oblongo, margine dorsali recto, terminali obliquè truncato.

THE SOLID SOLECURTUS. Shell subrhomboidal, oblong, white, covered with a brown wrinkled epidermis; anterior side rather short, rather attenuated, dorsal margin sloped downwards, ventral sloped upwards; middle flattened, rather contracted, impressed with a groove; posterior side rugose, obtusely angular, oblong, dorsal margin straight, terminal obliquely truncated.

GRAY. *Spicelegia Zoologica*, t. 3, f. 12.

Hab. Peru.

Species 4. (Mus. Brit.)

SOLECURTUS STRIGILATUS *Sol. testâ convexâ, solidâ,*

utrinquè obtusè truncatâ, latè hianti; rosâ, medio albo biradiatâ, sulcis obliquis, divaricatis, ad angulum posticum angulatis sculptâ; latere postico oblongo; latere antico obtusè truncato.

THE CURRY-COMBED SOLECURTUS. Shell convex, solid, obtusely truncated on each side, broadly gaping; pink, with two white rays in the middle, sculptured with oblique, diverging sulci, angular at the posterior angle; posterior side oblong; anterior side obtusely truncated.

LINNEUS. *Systema Naturæ*.

Hab. Mediterranean and Atlantic.

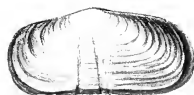
The British *Solecortus candidus* was formerly supposed to belong to this species.



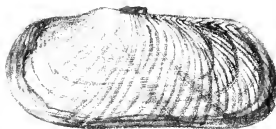
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SOLECURTUS.

PLATE II.

Species 5. (Mus. Brit.)

SOLECURTUS QUON. *Sol. testē obliquē, lim. palliat. radi. alba, medio et post. distanter et oblique solcatā; scelis prop. conspicuo dorsali et lat. in angulatis; later. antio. brevi, subulata; later. postico convexo, oblique truncato; margin. dorsali utriusque excavato; margin. ventrali convexo.*

QUON'S SOLECURTUS. Shell oblique, inequilateral, white, distantly and obliquely grooved in the middle and posteriorly; grooves angularly turned back near the dorsal margin; anterior side short, rounded; posterior side curved, obliquely truncated; dorsal margin excavated on both sides; ventral margin convex.

DESHAYES' MS. in the Cumingian collection.

Hab. Philippines.

Rather an arched species with few curved grooves.

Species 6. (Fig. a, b, Mus. Brit.)

SOLECURTUS ABBREVIATUS. *Sol. testē palliat. (pl. l.) compressā, utriusque truncatā, paulo apertā; concentricē angulātā; later. postico oblique truncato; later. antio. brevissimā; medio subulato depresso; indus medio brevis costata; margin. ventrali recto, ad subulam medianam sinuato; margin. dorsali utriusque declivi.*

THE ABBREVIATED SOLECURTUS. Shell pale fulvous, compressed, truncated at each end, a little open; concentrically wrinkled; posterior side obliquely truncated, anterior side rather short; middle depressed with a broad groove, slightly ribbed at the middle within; ventral margin straight, sinuous at the medial groove; dorsal margin sloped at each side.

GOULD.

Hab. Malacca.

Species 7. (Mus. Brit.)

SOLECURTUS DESHAYESI. *Sol. testē albā, rectā, prop. marginem anticam later. declivi oblique subulato-*

clina solcatā; later. postico elongato, oblique truncato; margin. ventrali rectissimo, medio subulato; scelis prop. marginem dorsalem angulatum retrois.

DESHAYES' SOLECURTUS. Shell whitish, straight, smooth near the anterior margin, thence obliquely, somewhat divergently grooved; posterior side elongated, obliquely truncated; ventral margin rather straight; middle slightly contracted; grooves turned back angularly near the dorsal margin.

DONKER, Proc. Zool. Soc., 1861.

Hab. Moroto Bay, Australia.

There are no distinct rays of colour, but a slight central contraction in this shell, and the grooves are coiled up towards the dorsal margin, and then turned back at a sharp angle.

Species 8. (Mus. Brit.)

SOLECURTUS COMPLICATUS. *Sol. testē oblongā, pallidē (pl. l.) empressā, spinulose rugato indutā, medio contractā, levigatā, utriusque subtruncatā, hiantī; margin. dorsali subulato.*

THE NARROWED SOLECURTUS. Shell oblong, pale fulvous, compressed, covered with a wrinkled epidermis, narrowed in the middle, smooth, rather truncated and open at each end; dorsal margin somewhat sloped.

LISEUX'S Systema Naturæ.

Hab. Naples.

In *Solecortus abbreviatus* and *S. antiquatus*, the depression in the centre is defined at the edges so as to form a groove. This is not the case in the present species.

Species 9. (Mus. Brit.)

SOLECURTUS SANCTE-MARIE. *Sol. testē brevi, albā, oblongo-subquadratā, utriusque lat. hiantī, et*

June, 1874.

SOLECURTUS.—PLATE II.

truncatâ, versùs marginem anteriorem laevi, inde obliquè et crebrè sulcatâ; sulcis post medium angulatum dicaricatis; latere postico oblongo, latere antico brevi; marginè ventrali subcontracto.

THE ST. MARTHA SOLECURTUS. Shell short, elevated, white, oblong-squarish, gaping and truncated widely at each end, smooth towards the anterior margin, thence obliquely and closely grooved; grooves angularly divergent behind the middle; posterior side oblong, anterior side short: ventral margin rather contracted.

DUNKEE, MS. Brit. Mus.

Hab. North Australia.

The angles in the sulci radiate from the umbo to the ventral margin of the posterior terminus. It is a deep and widely gaping species resembling *S. strigilatus*, but shorter.

Species 10. (Mus. Brit.)

SOLECURTUS AUSTRALIS. *Sol. testâ oblongâ, subdepressâ, tenui, roseâ, radiatum albo fasciatâ, anticè propè marginem levigatâ, jèrè omnino tenuiter creberrimè sulcatâ; sulcis posticè acutè angulatis; angulis a termino radiatum distantibus.*

THE AUSTRALIAN SOLECURTUS. Shell oblong, subdepressed, thin, pink, radiately white-banded, anteriorly smooth near the margin, nearly all over finely very closely grooved; grooves posteriorly sharply angular; angles distant from the end in a radiating direction.

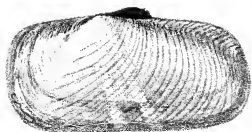
DUNKEE, Proc. Zool. Soc., 1861.

Hab. Moreton Bay.

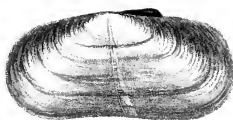
The sculpture of this species is very fine, and the angles of the sulci radiate from the umbones to the posterior ventral angle.



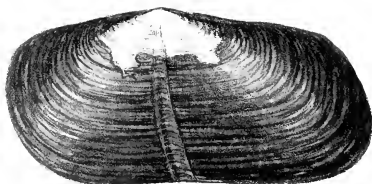
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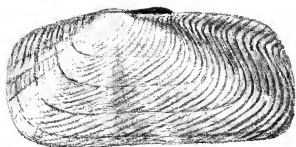
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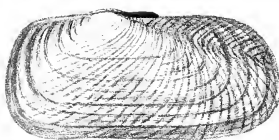
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17

SOLECURTUS.

PLATE III

Species 11. (Mus. Brit.)

SOLECURTUS MINIMUS. *Sol. testē parvū, obliqū, s. d. p. truncatū, compressū, sulcō parvū, latigū, un-
guiculatū, et c. caput. Ant. antice breviusculo,
medio truncato, sinuato. Latere postico attenuato,
et p. d. breviusculo.*

THE MINUTE SOLECURTUS. Shell small, whitish, semi-
pellucid, compressed, slightly reniform, smooth
anteriorly cone-triangularly wrinkled; anterior side
rather short; middle narrowed, sinuous; post-
erior side thin, oblique, rather acuminate.

DUNKER. Proc. Zool. Soc., 1861.
Hab. Morion Bay.

Species 12. (Mus. Brit.)

SOLECURTUS PHILIPPINARUM. *Sol. testē oblongū, utrinque
truncatū, levit. roseū, medio fuscolis albis hinculatis;
ant. lat. p. d. reced. angulata anticom. medio et
post. sub. obliqū arcuatis; p. d. marginem
posticū d. sulcū angulatis et divergentis sculptū;
sin. gibbus dorsali ventrali p. rectis.*

THE PHILIPPINE SOLECURTUS. Shell oblong, truncated
at each end, gaping, pink, with two white rays in
the middle; smooth anteriorly, towards the an-
terior angle, in the middle and posteriorly
sculptured with obliquely arched sulci; angular
and divergent near the posterior dorsal margin;
dorsal and ventral margins straight.

DUNKER. Proc. Zool. Soc., 1874.
Hab. Philippines.

This species resembles *Solecurtus strigatus*, but
has a wide anterior space without sulci, and the angles
of the posterior sulci are in a line near the posterior
dorsal margin.

Species 13. (Mus. Brit.)

SOLECURTUS ANTIQUATUS. *Sol. testē compressū, oblongū,
sordidū, epidermidē fuscō-fusco indatū, et latera*

*concolora rugatū, latere antice angustiusculo, ad
terminum rotundato; medio subcavato, subarcu-
tato, radiatim concentricato; latere postico paulo
longiore, latere, obliqū subtruncato; umbonibus
subarcuatis; marginē antice-dorsali declivi.*

THE ANTIQUATED SOLECURTUS. Shell compressed, oblong,
dingy, covered with a smoky-brown epidermis,
concentrically wrinkled at the sides; anterior side
rather narrow, rounded at the end; somewhat
excavated and narrowed in the middle, with a
radiating groove; posterior side a little longer
and wider, a little truncated obliquely; umbones
subarcuated; antero-dorsal margin sloped down-
wards.

PLINNAE. Zoology.

Hab. Mediterranean.

Species 14. (Mus. Brit.)

SOLECURTUS SCHILPMACHERI. *Sol. testē oblongū, trap-
ezoidē, utrinque subtruncatū, obliqū, paulo hiantī;
concolorē, rugatū, sordidē albū, epid. levit. rugoso
indatū, medio planulato, depresso, radiatim uni-
sulcato; marginē ventrali recto; marginē dorsali
utrinque declivi; latere antice breviusculo.*

SCHILPMACHER'S SOLECURTUS. Shell oblong, trapezoidal,
rather truncated, oblique and a little gaping at
each end; concentrically wrinkled, dull white,
covered with a rough epidermis; flattened, de-
pressed, and with a single radiating groove in the
middle; ventral margin straight, dorsal margin
sloped at each end; anterior side rather short.

DUNKER. Proc. Zool. Soc., 1861.

Hab. ———?

One of the largest of this depressed form.

Species 15. (Mus. Brit.)

SOLECURTUS SULCATUS. *Sol. testē oblongū, roseū, utrin-
que truncatū, ant. medium et d. d. ad terminum*

posticam profundè sulcato; sulcis subdistantibus, undulatis curvis, præpè marginem dorsalem recurvis; latere antico brevi, præpè marginem dorsalem concentricè rugato, margine dorsali declivi; latere postico elongato; margine dorsali paulò arcuato.

THE GROOVED SOLECURTUS. Shell oblong, pink, truncated at each end, deeply grooved before the middle and thence to the posterior end; grooves rather distant, curved in waves, recurved near the dorsal margin; anterior side short, concentrically grooved near the dorsal margin; dorsal margin sloped; posterior side elongated; dorsal margin a little arched.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Moreton Bay.

The wavyly grooved sculpture of this species is very remarkable.

Species 16. (Mus. Brit.)

SOLECURTUS ALBUS. *Sol. testè elongatè, angustà, subcompressè, utrinquè paulò hiantè, albè; latere antico brevi, radiatim leviter costatè; latere postico elongato, versùs umbones obliquè sulcato, versùs terminum concentricè rugato, margine terminali rotundo; margine centrali subexcavato.*

THE WHITE SOLECURTUS. Shell elongated, narrow, rather compressed, a little gaping at each end, white; anterior side short, slightly radiately

ribbed; posterior side elongated, obliquely grooved towards the umbones; concentrically wrinkled towards the end, terminal margin rounded; ventral margin a little excavated.

MARTYN. — ?

Hab. — ?

The oblique grooves are few and slight, and the shell is very inequilateral.

Species 17. (Mus. Brit.)

SOLECURTUS CANDIDUS. *Sol. testè oblongà, albè, subdepressà, inæquilateralè, utrinquè hiantè, præpè terminum anteriorem brevitatè; fere omnino obliquè sulcato; sulcis versùs marginem dorsalem angulatis, recurvis; latere antico brevi, truncato; latere postico subrotundo; margine centrali medio convexo.*

THE CANDID SOLECURTUS. Shell oblong, white, subdepressed, inequilateral, gaping at each end, smooth near the anterior end; obliquely grooved nearly all over; grooves towards the dorsal margin angular and recurved; anterior side short, truncated; posterior side rather rounded; ventral margin concave in the middle.

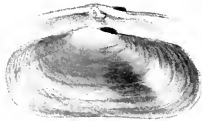
RENIER. Desh. Traité Élémentaire.

Hab. British and Mediterranean Seas.

The British specimens are much smaller than the one here figured.



18



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21



22

SOLECURTUS.

PLATE IV.

Species 18. (Mus. Sowerby.)

SOLECURTUS CENTRALIS. *Sol. testâ oblongâ, inflatâ, albâ, epidermidâ olivaceo-fusca imbutâ; latere antico elongato, ventricoso, cœcis terminalibus rugato, margine terminali leviter sursùm acclivâ, suprà subcucato; margine dorsali elevato, subarcuato; latere antico breviori, angusto, obliquè angulato, ad terminum truncato; margine centrali medio subcontracto.*

THE CENTRAL SOLECURTUS. Shell oblong, inflated, whitish, covered with an olive-brown epidermis; anterior side elongated, ventricose, wrinkled towards the end, terminal margin below sloped upwards, above cuneated; dorsal margin elevated, a little arched; anterior side rather shorter, narrow, obliquely angular, truncated at the end; ventral margin a little contracted.

CONRAD — ?

Hab. Georgia.

This, like several other approximate species, has the greater length at the anterior side.

Fig. 19. (Mus. Sowerby.)

SOLECURTUS ANTIQVATUS. Species 13, Plate III. It was not till after the plates were printed that the identity of this shell was discovered. It is a very different variety.

Species 20. (Mus. Sowerby.)

SOLECURTUS SEMINUDUS. *Sol. testâ oblongâ, inflatâ, cœcis umbones inclinatâque obliquè, distanter sulcata; atrâmpè truncatâ, latè levitè, carinâ, fuscâs albâs duabus medio radiatâ; latere antico brevi, cucato, subquadrato; latere postico producto, margine terminali obliquè truncato; margine dorsali recti; margine centrali medio excavato.*

THE HALF-PALE SOLECURTUS. Shell oblong, inflated, obliquely and distantly grooved towards the umbones and centre, truncated at each end, broadly gaping, flesh-coloured, rayed with two whitish bands in the middle; anterior side short, cuneated, nearly square; posterior side produced, terminal margin obliquely truncated; dorsal margin straight; ventral margin excavated in the middle.

SOWERBY.

Hab. — ?

This shell has a peculiar contraction in the middle, and the oblique diverging grooves only extend from the umbonal region to near the middle, then dying out so as to leave the rest of the surface smooth and bare. It has a general resemblance to *Solecortus strigilatus*, from which it is evidently distinct.

Species 21. (Fig. a, b.)

SOLECURTUS CARIBÆUS. *Sol. testâ oblongâ, albâ, cœtiâsculâ; latere antico quam posticum longiori, rotundo, superâ obscure cuneato; latere postico obtusè angulato, angustiusculo, margine terminali latè truncato; margine dorsali antici recto, posticè excavato, margine centrali recto.*

THE CARIBÆAN SOLECURTUS. Shell oblong, whitish, rather straight; anterior side larger than the posterior, rounded, obscurely cuneated above; posterior side obtusely angular, rather narrow, terminal margin broadly truncated, dorsal margin anteriorly straight, posteriorly excavated; ventral margin straight.

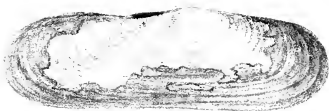
LAMAECK. Anim. s. Vert. Solen, Sp. 13.

Solen Guineensis, Delwyn.

Hab. America.

The difference in form between this and Species 18, will be apparent to the eye.

August, 1874.



254



256



255



257



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259

SOLECURTUS.

PLATE V.

Species 22. (Fig. *c, b*, Mus. Brit. and Sowerby.)

SOLECURTUS COQUIMBENSIS. *Sol. testâ oblongâ, fasciis latis purpureis radiatâ, medio planatâ, anticâ posticâque emulatâ; lateres anteriores quam posteriores paulo breviores, marginâ dorsali declivi; lateres posteriores ad terminum superiorem declivi, marginâ dorsali prope umbones excavata; marginâ ventrali recto.*

THE COQUIMO SOLECURTUS. Shell oblong, rayed with broad purple bands, flattened in the middle, wrinkled in front and behind; anterior side a little shorter than posterior, with dorsal margin sloped; posterior side sloped above at the end with dorsal margin excavated near the umbones; ventral margin straight.

NO. 113.

Hab. Coquimbo.

The smaller specimen is in the British Museum marked as *Dors. b, 1*, to which I do not think it belongs. The locality attached is as stated above.

Species 23. (Mus. Sowerby.)

SOLECURTUS CYLINDRICUS. *Sol. testâ oblongâ, angustâ, gibbosâ utrinque obliquè emulatâ; albâ, epidermid. f. siccâ rugatâ indurâ; lateres anteriores quam anteriores breviores, ad terminum anteriorem angustâ; lateres posteriores angustâ, ad terminum subtruncato; medio emulato, marginâ ventrali depressâ, subexcavata; marginâ ventrali recto.*

THE CYLINDRICAL SOLECURTUS. Shell oblong, narrow, gibbous, obliquely angular at both ends; white, covered with a brown rough epidermis; anterior longer than posterior side, sharply angular at the end; posterior side narrower, shorter, sub-truncated, with the dorsal margin depressed, rather excavated; ventral margin straight.

SOWERBY.

Hab. ———

Differing from *Sol. Caribæus* in the narrowness and straightness of the general form and the angularity of the oblique slope at each end.

Species 24. (Mus. Brit.)

SOLECURTUS VIOLESCENS. *Sol. testâ elongatâ, compressâ, utrinque truncatâ, fasciis pallidis purpureis latis radiatâ, epidermid. pallidâ fusca indurâ; lateres anteriores elongatâ, attenuatâ; lateres posteriores brevissimos, lateres, marginâ dorsali subelevatâ, marginâ ventrali ad terminum anteriorem declivi.*

THE PURPLE SOLECURTUS. Shell elongated, compressed, truncated at each end, rayed with broad pale purple bands, covered with a pale brown epidermis; anterior side elongated, attenuated; posterior side rather shorter, broader, dorsal margin a little raised, ventral margin sloped upwards at the end.

DESHAYES — ? MS. Brit. Mus.

Hab. S. W. Mexico.

Species 25. (Fig. *a, b*, Mus. Sowerby.)

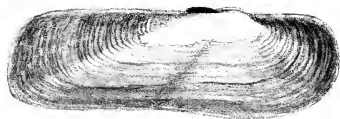
SOLECURTUS ACUTIDENS. *Sol. testâ elongatâ, angustâ, tenui, utrinque angulatâ, cæcis terminis radiâ hinc; lateres anteriores brevis, marginâ terminali rotundâ; lateres posteriores elongatâ, ad terminum subtruncato; medio emulato, marginâ ventrali subcontractâ.*

THE SHARP-TOOTH SOLECURTUS. Shell elongated, narrow, thin, angular at each end, strongly ridged towards the ends; anterior side short, with terminal margin rounded; posterior side elongated, somewhat truncated at the end; flattened in the middle, ventral margin a little contracted.

SOWERBY AND BRIDGEMAN. Zoological Journal, vol. iv.

Sola *Michanli*, Cailland.

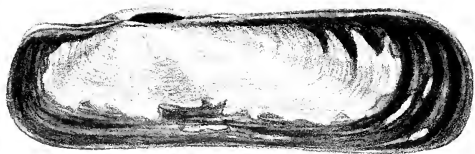
Hab. Sumatra.



26



27



28



29

SOLECURTUS.

PLATE VI.

Species 26. (Mus. Brit.)

SOLECURTUS MOLLIS. *Sol. testâ pallidâ, oblongâ, anticâ posticâque rugatâ, medio complanatâ, sulco obliquo radiatâ, latere antico brevi, subtruncato; latere postico producto, recto, margine terminali latè truncato; margine dorsali recto; margine ventrali medio paulò contracto.*

THE SOFT SOLECURTUS. Shell pale, oblong, anteriorly and posteriorly wrinkled, flattened in the middle, rayed with an oblique groove; anterior side short, rather rounded; posterior side produced, straight, with the terminal margin broadly truncated; dorsal margin straight; ventral margin a little contracted in the middle.

GOULD —? MS. Mus. Brit.

Hab. —?

Much less oblique and more straightly truncated than *Solecortus constrictus*, Lamarck.

Species 27. (Mus. Brit.)

SOLECURTUS RUFUS. *Sol. testâ compressâ, elongatâ, subreniformi, subæquilaterali, purpureâ, albo radiatâ, epidermide aurco-fusco indutâ; margine dorsali arcuato, utrinquè d-licî, terminibus rotundis; margine ventrali arcuatione concavo.*

THE RED SOLECURTUS. Shell compressed, elongated, somewhat kidney-shaped, nearly equilateral, purple rayed with white, covered with a golden brown epidermis; dorsal margin arched, sloped downwards at each end; ends rounded; ventral margin concave in an arch.

BOSCH. —?

Hab. —?

The two ends of this shell are bent down so as to form an arch of the whole.

Species 28. (Mus. —? copied.)

SOLECURTUS INÆQUALIS. *Sol. testâ elongatâ, subinflatâ, posticè angulatâ; purpureo latè radiatâ; latere antico brevi, truncato; latere postico perelongato, subcompresso, ad terminum rotundatim truncato; margine dorsali antè umbones excavato, post umbones recto, versùs terminum elevato; margine ventrali frè recto.*

THE UNEQUAL SOLECURTUS. Shell elongated, rather inflated, posteriorly angular; broadly rayed with purple; anterior side short, truncated; posterior side very long, rather expanded, roundly truncated at the end; dorsal margin excavated in front of the umbones, straight behind the umbones, raised towards the end; ventral margin nearly straight.

SOWERBY. Reeve, Conch. Cyst. Pl. XXVI.

Solecortus Dombeyi, Reeve, not Lamarck.

Hab. —?

It has been found desirable to copy the figure representing the type.

Species 29. (Mus. Brit.)

SOLECURTUS CONSTRICTUS. *Sol. testâ oblongâ, subcompressâ, utrinquè rugatâ, pallidâ, epidermide tenui indutâ, medio complanatâ, sulco obliquo radiatâ; latere antico brevi, margine dorsali producto; latere postico perelongato, margine terminali obliquè truncato, margine ventrali producto.*

THE CONSTRICTED SOLECURTUS. Shell oblong, subcompressed, wrinkled at each end, pale, covered with a thin epidermis, middle flattened, rayed with an oblique sulcus; anterior side short, with dorsal margin produced; posterior side much lengthened, terminal margin obliquely truncated, ventral margin produced.

LAMARCK. Anim. sans Vert. Solen, Sp. 15.

Hab. China and Japan.

August, 1874.



30^a



30^b



31^a



31^b



32

SOLECURTUS.

PLATE VII.

Species 30. (Fig. a, b, Mus. Brit.)

SOLECURTUS DUMBEL. *Sol. testâ elongatâ, subæquilaterali, fasciis purpureis latis radiatâ; latere antico oblongo, ad terminum truncato; latere postico paulò magis expanso, ad marginem ventralem inflato ad marginem terminalem rotundo; margine dorsali post umbones excavato, antè umbones recto; margine ventrali medio arcuatim excavato.*

DOMEY'S SOLECURTUS. Shell elongated, subequilateral, rayed with broad purple bands; anterior side oblong, truncated at the end; posterior side a little more expanded, inflated at the ventral margin, rounded at the terminal margin; dorsal margin excavated behind the umbones, straight before the umbones; ventral margin excavated in an arch at the middle.

LAMARCK. *Anim. sans Vert. Solen, Sp. 12.*

Hab. S. America.

Among the numerous forms that have been referred to this species, the one now figured appears best to agree with the Lamarckean ideal.

Species 31. (Fig. a, b, Mus. Brit.)

SOLECURTUS NOVACULINA. *Sol. testâ oblongâ, trapezoidâ, rectâ, tenui, albidd, medio planâ, ad latera concentricè rugatâ; latere antico breviusculo, latere postico elongato, ad terminum obliquè truncato; margine dorsali recto; margine ventrali vie concavo.*

THE RAZOR SOLECURTUS. Shell oblong, trapezoidal straight, thin, whitish, flat in the middle, concentrically wrinkled at the end; anterior side rather short; posterior side elongated, obliquely truncated at the end; dorsal margin straight; ventral margin scarcely concave.

BENSON. (Genus Novaculina.)

Hab. Near Calcutta.

Species 32. (Mus. Brit.)

SOLECURTUS COMPLANATUS. *Sol. testâ compressâ, tenui, albidd, epidermide rugosa indutâ; latere antico, breviusculo utriusque, ad terminum rotundato; margine dorsali subdeclivi; latere postico elongato, gradatim versus terminum expanso, ad terminum truncato; margine dorsali rectiusculo; ligamento in marginem dorsalem impresso.*

THE FLATTENED SOLECURTUS. Shell compressed, thin, whitish, covered with a rough epidermis; anterior side rather short, attenuated, rounded at the end; dorsal margin sloped downwards a little; posterior side elongated and gradually expanded towards the end, truncated at the end; dorsal margin rather straight; ligament impressed into the dorsal margin.

SOWERBY.

Hab. — ?

This species partakes somewhat of the form of *Pharus legumen*.

August, 1874.



53



54



55



56



57



58



59

SOLECURTUS.

PLATE VIII.

Species 33. (Mus. Brit.)

SOLECURTUS HELMOLIS. *Sol. testâ ovata, subâ, pallidâ, lineatâ, subangulatâ, medio depressâ, præpæ umbonâ, præapice rotundâ, marginâ dorsali atrâ, angulâ declivi, conapice centrali radiâ, excavatâ; latere postico laeviusculo.*

THE HELMOL SOLLECTUS. Shell small, white, pellucid, smooth, rather equilateral, depressed in the middle, rayed near the umbones, with purple inside; dorsal margin sloped at each side; ventral margin excavated in the middle; posterior side rather the longer.

DILWY — ?

Hab. Nicobar Islands.

A single ray of purple near the umbones is seen through the pellucid shell.

Species 34. (Mus. Brit.)

SOLECURTUS NITIDISSIMUS. *Sol. testâ oblongâ, angustâ, compressâ, inequilaterali, pallidâ, purpureo-radiatâ, anticâ concentricè tenaciter rugatâ; latere antico elongatâ, ad terminum subtruncatâ; latere postico laeviusculo, superâ excavatâ, ad terminum obliquè truncatâ.*

THE POLISHED SOLECTUS. Shell oblong, narrow, compressed, inequilateral, rayed with pale purple, anteriorly concentrically finely wrinkled; anterior side elongated, rather rounded at the end; posterior side rather short, wedge-shaped above, obliquely truncated at the end.

DORHX. Proc. Zool. Soc., 1861.

Hab. — ?

Species 35. (Mus. Sowerby.)

SOLECURTUS BIDENS. *Sol. testâ elongatâ, angustâ, epidermide laevigatâ, olivaceâ indatâ, intus cæcis marginem purpureâ, ad umbonem purpureo aniradiatâ;*

latere postico longiusculo, subtruncatâ; marginem centrali medio subcontractâ.

THE DOUBLE-TOOTHED SOLECTUS. Shell elongated, narrow, covered with a smooth olive epidermis, purple within, towards the margin, with a single ray of purple at the umbones; posterior side rather long, somewhat truncated; ventral margin rather contracted in the middle.

CHEMNER. Conch., fig. 1439.

Hab. Nicobar Islands.

The differences between *S. bidens* and *S. fragilis* are those of form, the latter being proportionately narrow and oblong.

Species 36. (Mus. Brit.)

SOLECURTUS CALIFORNIANUS. *Sol. testâ elongatâ, angustâ, compressâ, medio pallidâ fulcâ, utrinquè sordidè olivaceâ; umbonibus subcentralibus; latere postico obliquè angulatâ, radiatim striatâ, ad terminum truncatâ, latere antico ad terminum subtruncatâ; marginibus dorsali centraliquè rectis.*

THE CALIFORNIAN SOLECTUS. Shell elongated, narrow, compressed, pale fulvous in the middle, dull olive at each end; umbones nearly central; posterior side obliquely angular, radiately striated, truncated at the end, anterior side rounded at the end, dorsal and ventral margins straight.

COSSEAB — ?

Hab. California.

Species 37. (Mus. Brit.)

SOLECURTUS ANGULATUS. *Sol. testâ oblongâ, subquadratâ, rectâ, pallidè fulcâ, epidermide rugosâ indatâ; latere postico brevi, validè angulatâ, subobliquè truncatâ; latere antico elongatâ, concentricè tenaciter lirato, truncatâ; margine dorsali declivi, margine centrali recto.*

November, 1874.

THE ANGULAR SOLECURTUS. Shell oblong, subcylindrical, straight, fulvous, covered with a rough epidermis; posterior side short, with a very strong angle, rather obliquely truncated; anterior side elongated, concentrically finely ridged, truncated; dorsal margin sloped, ventral margin straight.

SOWERBY.

Hab. West Africa.

Much straighter and more cylindrical than *Sol. curtus centralis* or *Cariborus*, with a more decided and gibbous posterior angle. At the same time it is broader, than *Sol. cylindrica*, and not so rigidly straight and angular.

Species 38. (Mus. Brit.)

SOLECURTUS PERUANUS. *Sol. testâ tenui, brevi, albidi, inflatâ, utrinquè rugatâ, epidermide tenui, pallidè fulvâ indutâ; latere postico brevi, margine dorsali excavato, margine terminali rotundatotruncato, margine ventrali valvè sursum acclivi; medio subplanulato, umbonibus tumidis, margine ventrali eiv contracto; latere antico eadè inflato, latûsculo, margine terminali obtusè truncato, margine ventrali convexo.*

THE PERUVIAN SOLECURTUS. Shell thin, short, whitish, inflated, wrinkled at each end, covered with a thin, pale, fulvous epidermis; posterior side short,

dorsal margin excavated, terminal margin roundly truncated, ventral margin strongly sloped upwards; middle rather flattened, umbos tumid, ventra margin contracted; anterior side much inflated, rather broad, terminal margin obtusely truncated, ventral margin convex.

DUNKER — ?

Hab. Tumbes, Peru.

Species 39. (Mus. Brit.)

SOLECURTUS SUTILES. *Sol. testâ elongatâ, angustâ, medio planatâ, posticè concentricè rugatâ, purpureo-caruâ, epidermide olivaceo-aurâ, la rigatâ indutâ; latere postico breviusculo, ad terminum subobliquè truncato, margine dorsali subdeclivi; medio plano, margine ventrali recto; latere antico producto, ad terminum perpendiculariter truncato.*

THE STRAIGHTENED SOLECURTUS. Shell elongated, narrow, flattened in the middle, concentrically wrinkled, fleshy purple, covered with a golden olive smooth epidermis, posterior side rather the shorter, rather obliquely truncated at the end, dorsal margin rather sloped; middle flat, ventral margin straight; anterior side produced, perpendicularly truncated at the end.

CONRAD, J. A. N. S. Phil., 7, p. 233, t. 17, f. 10.

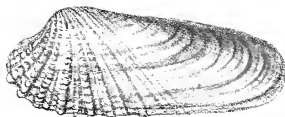
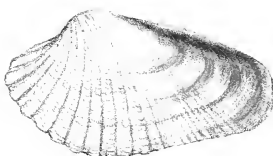
Hab. California.

SOLECURTUS.

	Plate.	Species.		Plate.	Species.
<i>albiflavus</i> , <i>G. DeMeijere</i>	II.	6	<i>Guineensis</i> , <i>Delwijn</i>	IV.	21
<i>andreae</i> , <i>Sorochy</i>	V.	25	<i>insularis</i> , <i>Sorochy</i>	VI.	28
<i>atropis</i> , <i>Mattoni</i>	III.	16	<i>Miclandi</i> , <i>Caillard</i>	V.	25
<i>caudatus</i> , <i>Sorochy</i>	VIII.	37	<i>minutus</i> , <i>Donder</i>	III.	11
<i>chalcidius</i> , <i>F. G.</i>	III.	15	<i>mollis</i> , <i>Gould</i>	VI.	26
<i>caudatus</i> , <i>F. G.</i> Pl. IV. 1.			<i>nigri-sinus</i> , <i>Dolan</i>	VIII.	34
<i>Atropis</i> , <i>Mattoni</i>	II.	10	<i>novae-velina</i> , <i>Beeson</i>	VII.	31
<i>brachy</i> , <i>Chapuis</i>	VIII.	35	<i>oblongus</i> , <i>Dolan</i>	I.	2
<i>Carolinianus</i> , <i>Chapuis</i>	VIII.	36	<i>Peruvianus</i> , <i>Donder</i>	VIII.	38
<i>caudatus</i> , <i>F. G.</i>	III.	17	<i>Philippinarum</i> , <i>Donder</i>	III.	12
<i>Cephalus</i> , <i>Leconte</i>	IV.	24	<i>Quoyi</i> , <i>Deshays</i>	II.	5
<i>concolor</i> , <i>Chapuis</i>	IV.	18	<i>rufus</i> , <i>Bloch</i>	VI.	27
<i>concoloratus</i> , <i>Leconte</i>	II.	8	<i>Sainte-Marthae</i> , <i>Donder</i>	II.	9
<i>complexus</i> , <i>Chapuis</i>	VII.	32	<i>Schomacheri</i> , <i>Donder</i>	III.	14
<i>constrictus</i> , <i>Leconte</i>	VI.	20	<i>sinuatus</i> , <i>Sorochy</i>	IV.	20
<i>Copumbicus</i> , <i>Sorochy</i>	V.	22	<i>solidus</i> , <i>Gray</i>	I.	3
<i>cyphodrius</i> , <i>Sorochy</i>	V.	23	<i>strigilatus</i> , <i>Linnaeus</i>	I.	1
<i>Deshaysii</i> , <i>Donder</i>	II.	7	<i>suberosus</i> , <i>Cornal</i>	VIII.	39
<i>Donderi</i> , <i>Leconte</i>	VII.	30	<i>subulatus</i> , <i>Donder</i>	III.	15
<i>Doubleti</i> , <i>Receveur</i>	VI.	28	<i>viridens</i> , <i>Chennitz</i>	VIII.	35
<i>exaratus</i> , <i>Philipp</i>	I.	1	<i>violascens</i> , <i>Deshays</i>	V.	24
<i>fragilis</i> , <i>Dolan</i>	VIII.	33			

MONOGRAPH
OF THE GENUS
PETRICOLA.

“There is not a particle in sea or air
But Nature owns Thy plastic influence there.”—*Milton* (110.)



PETRICOLA.

PLATE I.

GENUS PETRICOLA, *Lesson*.

1. *SP. 1833. Petricola nitida, depressata, epidermide*
nitida, costis, lat. et in radiatis costata; latera
obliqua, striata; labre postica producta,
obliqua, striata; Cardium, sp. ca. obliqua,
labre postica, striata, convexa. Impressio palli
epidermide nitida.

8001. Shell elongated, very narrow, varied with a
strongly striated surface, radiately ribbed; an-
teriorly rounded, posteriorly produced, and
anteriorly attenuated. Hinge with two teeth in
the middle of the anterior margin. Petiole tri-
angular, posteriorly produced.

L. *SP. 1833. Petricola nitida, depressata, epidermide*
nitida, costis, lat. et in radiatis costata; latera
obliqua, striata; labre postica producta,
obliqua, striata; Cardium, sp. ca. obliqua,
labre postica, striata, convexa. Impressio palli
epidermide nitida.

WEST. *SP. 1833. Petricola nitida, depressata, epidermide*
nitida, costis, lat. et in radiatis costata; latera
obliqua, striata; labre postica producta,
obliqua, striata; Cardium, sp. ca. obliqua,
labre postica, striata, convexa. Impressio palli
epidermide nitida.

THE NEAR PETRICOLA. Shell pholad-like, narrow,
long, anteriorly rayed with crenulated, distant
ribs; posteriorly gradually attenuated, radiately
striated, rather acuminate at the end.

DESHAYES, Proc. Zool. Soc., 1853.
Hab. — ?

This shell was named by M. Deshayes from a speci-
men in Mr. Cuming's collection. Notwithstanding the
varieties to which shells of this genus are subject, the
extreme attenuation and finer sculpture in this case
may be considered sufficient to distinguish the species
from *Petricola pholadyformis*.

Dull ring chiefly from *Petricola serrata* in the com-
parative thinness of the sculpture.

Species 2. (Mus. Brit.)

PETRICOLA GRACILIS. *Pt. testâ pholadyformi, angustâ,*
oblongâ, antici costis crenulatis, distantibus radiatâ;
posticâ gradualitè attenuatâ, radiatim striatâ, ad
terminum subacuminatâ.

THE SLIMMER PETRICOLA. Shell pholad-like, narrow,
long, anteriorly rayed with crenulated, distant
ribs; posteriorly gradually attenuated, radiately
striated, rather acuminate at the end.

DESHAYES, Proc. Zool. Soc., 1853.

Hab. — ?

This shell was named by M. Deshayes from a speci-
men in Mr. Cuming's collection. Notwithstanding the
varieties to which shells of this genus are subject, the
extreme attenuation and finer sculpture in this case
may be considered sufficient to distinguish the species
from *Petricola pholadyformis*.

Species 3. (Mus. Brit.)

PETRICOLA CONFINNA. *Pt. testâ oblongâ, subcylindricâ,*
anticâ hecissimâ, costis acutis, erbris radiatâ;
posticâ productâ, concentricè laminatâ, inter laminas
radiatim striatâ, ad terminum truncatâ, margine
dorsali parvè declivè.

THE NEAR PETRICOLA. Shell oblong, subcylindrical,
short in front, rayed with crenulated, rather
distant ribs; posteriorly produced, concentrically
laminated, radiately striated between the laminae,
truncated at the end, with dorsal margin a little
sloped.

SOWERBY, Proc. Zool. Soc., 1834, p. 46. Thesaurus
Conchyliorum, f. 3.

Hab. Monte Christi.

The ribs at one end and the distinct and regular
laminae at the other give a peculiarly pretty appearance
to this shell.

Species 4. (Mus. Brit.)

PETRICOLA SERRATA. *Pt. testâ pholadyformi, elongatâ,*
anticâ hecissimâ, costis acutis, erbris radiatâ;
posticâ attenuatâ, striâ acutis, elevatis oblique
radiatâ, ad terminum acuminatâ.

THE SERRATED PETRICOLA. Shell pholad-shaped, elon-
gated, anteriorly very short, rayed with sharp,
close ribs; posteriorly attenuated, obliquely rayed
with sharp, raised close striae, acuminate at the end.

DESHAYES, Proc. Zool. Soc., 1853.

Hab. New Zealand.

November, 1874.

PETRICOLA.—PLATE I.

Species 4. (Mus. Brit.)

PETRICOLA DACTYLUS. *Pet. testâ oblongâ, valdè inflatâ, pholadiformi; anticè paulò hianti, acuminatâ, costis decumbentibus, serratis, subuplicatis usque ad medium radiatâ; ad medium ventricosissimâ; posticè attenuatâ, radiatim striatâ, ad terminum truncatâ, margine dorsali declivi, ventrali aequali.*

THE DATE PETRICOLA. Shell oblong, much inflated, pholas-shaped; anteriorly a little gaping, acuminate, rayed as far as the middle with decumbent, serrated ribs very ventricose at the middle; posteriorly attenuated, radiately striated, truncated at the end, dorsal margin sloped downwards, ventral sloped upwards.

OWERBY. Genera of Shells, fig. 3.

Hab. South America.

Species 5. (Mus. Brit.)

PETRICOLA ELEGANS. *Pet. testâ oblongâ, anticè paulò hianti, acuminatâ, concentricè laminatâ, radiatim striatâ, ad medium inflatâ, posticè antè angulum depressâ, post angulum, laminais laticibus, exfoliatis, exfoliatâ, ad terminum truncatâ; margine dorsali antè umbones excavato, post umbones subdeclivi.*

THE ELEGANT PETRICOLA. Shell oblong, anteriorly a little gaping, acuminate, concentrically laminated, radiately striated, inflated in the middle, posteriorly depressed in front of the angle, exfoliated behind the angle with broader laminae, truncated at the end; dorsal margin excavated before the umbones, somewhat sloped behind them.

DESHAYES (Venerupis). Proc. Zool. Soc., 1853.

Hab. — ?

Named by M. Deshayes from a shell in the Cunningham collection.

Species 6. (Mus. Brit.)

PETRICOLA CULTELLUS. *Pet. testâ pholadiformi, oblongâ, anticè rotundâ, brevissimâ, costis serratis acutis, subinstantibus radiatâ; posticè elongatâ, attenuatâ, striis elevatis, crebris obliquè radiatâ, ad terminum acuminatâ.*

THE PRUNING-KNIFE PETRICOLA. Shell pholas-like, oblong, rounded anteriorly, very short, rayed with serrated, sharp, rather distant ribs; posteriorly elongated, attenuated, obliquely rayed with elevated, close striae; acuminate at the end.

DESHAYES. Proc. Zool. Soc., 1853.

Hab. Ceylon.

In *Petricola pholadiformis* the front ribs are strong, rather biangular and distant. In the present species they are sharp, have a single angle, and are less distant.

Species 7. (Mus. Sowerby.)

PETRICOLA PIPULAMIFORMIS. *Pet. testâ oblongâ, subcylindricè, anticè rotundâ, brevissimâ, costis calidis, distantibus, subquadratis radiatâ, posticè elongatâ, attenuatâ costellis acutis, elevatis, crebris, obliquè radiatâ, ad terminum acuminatâ.*

THE PHOLAS-LIKE PETRICOLA. Shell oblong, sub-cylindrical, anteriorly rounded, very short, rayed with strong, distant, rather square ribs, elongated posteriorly, obliquely rayed with sharp, elevated, close riblets, attenuated at the end.

LAMARCK. Anim. s. Vert., *Petricola*, No. 11.

Hab. North America.

The external appearance of this well-known species is that of a Pholas; and it is only the absence of the subumbonal processes and accessory valves that distinguishes it, as far as the shell goes, from that family.



9^o



8



7^b



10^o



11^o



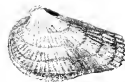
11^b



12^o



13^o



11



13

PETRICOLA.

PLATE II.

Species 8. (Fig. *a, b*, Mus. Brit.)

PETRICOLA NIVALA. *Pet. testâ oblongâ, inflatâ, pholadiformi, anticâ brevi, rotundâ, radiatim striatâ; posticâ elongatâ, subattenuatâ, perobliquè angulatâ, post angulum costis crebriâ, arcuatis, radiatâ, ad terminum angustè truncatâ, denticulatâ.*

THE SNOWY PETRICOLA. Shell oblong, inflated, pholad-shaped, anteriorly short, round, radiately striated; posteriorly elongated, slightly attenuated, very obliquely angular, rayed behind the angle with sharp, close ribs, narrowly truncated at the end, denticulated.

CHEMNIZ (Mytilus). Conch., vol. vii. Pl. LXXXII. f. 734.

Petricola rugosa, Sowerby.

Petricola furcata, Say.

Petricola tenuis, Sowerby.

Petricola gibba, Middendorf?

Hab. Nicobar (Ch.), Chili and Peru (Cuml.).

Species 9. (Fig. *a, b*, Mus. Sowerby.)

PETRICOLA DENTICULATA. *Pet. testâ pholadiformi, elongatâ, anticâ brevi, acuminatâ, ad marginem arcuicè et delirè, costis depressis erenatis radiatâ; posticâ radiatim striatâ, subacuminatâ; intus ad terminum et propè marginem ventralum castaneâ.*

THE DENTICULATED PETRICOLA. Shell pholad-shaped, elongated, anteriorly gaping, acuminated, sloped upwards and downwards at the margins, rayed with depressed erenated ribs; posteriorly radiately striated, rather acuminated; chestnut within, at the ends and near the ventral margin.

OWERBY. Proc. Zool. Soc., 1834.

Hab. Payti, Peru.

This species is even more pholad-like in form than *Petricola Pholadiformis*, having the anterior end acuminated.

(Species 10. Mus. Brit.)

PETRICOLA ISCHITA. *Pet. testâ elongatâ, pholadiformi, anticâ brevi, rotundâ, costis depressis erenatis radiatâ; posticâ subangulatâ, anti angulum depressâ, contractâ, post angulum costis numerosis, suboculis radiatâ, ad terminum subtruncatâ.*

THE UNCERTAIN PETRICOLA. Shell elongated, pholad-shaped, anteriorly short, rounded in front, rayed with depressed ribs; posteriorly subangular, depressed, contracted in front of the angle, rayed behind the angle with numerous rather sharp ribs, somewhat rounded at the end.

OWERBY.

Hab. — ?

I cannot identify the specimens of this shell in the British Museum with *Petricola niensis*. The latter seems to be characterized by sharp-edged ridges at the posterior end, while in the former the posterior ribs are more decumbent, and less distinct from the structure of other parts.

Species 11. (Fig. *a, b*, Mus. Sowerby.)

PETRICOLA LITHOPIAGA. *Pet. testâ brevi, subconiformi, radiatim striatâ, stris posterioribus majoribus; anticâ inflatâ, rotundatâ, brevissimâ; posticâ subattenuatâ, ad terminum plusminusve truncatâ.*

THE STONE-EATING PETRICOLA. Shell short, rather cuneiform, radiately striated, the posterior striae the larger; anteriorly inflated, rounded, very short; posteriorly rather attenuated, more or less truncated at the end.

RUTZUS (Verru). Linnæan Transactions of Turin.

Pholus striata, Lamarck.

Mya decussata, Turton.

Pholus costellata, Lamarck.

Pholus coacturaria, Lamarck.

PETRICOLA.—PLATE II.

Phobus rugosella, Blainville.
Hab. British shores.

The species is subject to great variations in form and sculpture, which have given rise to many needless synonyms.

Species 12. (Mus. Brit.)

PETRICOLA ILLIPTICA. *Pet. testâ oblongo-ellipticâ, subcompressâ, radiatim subcostâ, concentricè distanter laminatâ; latere antico breviusculo, rotundato; latere postico producto, ad terminum rix angulato; margine dorsali retiusculo.*

THE ILLIPTICAL PETRICOLA. Shell oblong-elliptical, subcompressed, radiately grooved, concentrically distantly laminated; anterior side rather short, rounded; posterior side produced, scarcely angular at the end; dorsal margin rather straight.

SOWERBY. Proc. Zool. Soc., 1834.
Hab. Payti, Peru.

This rather Venus-like species is found in hard mud at low water.

Species 13. (Mus. Brit.)

PETRICOLA CHINENSIS. *Pet. testâ brevi, subconatâ, radiatim striatâ; anticè brevissimâ, rotundatâ, inflatâ, stric tenuibus radiatâ; posticè subattenuatâ, angulatâ, anticè angulum depressâ, subcontractâ, post angulum costis decatis acutis radiatâ, ad terminum truncatâ; margine dorsali declivi.*

THE CHINESE PETRICOLA. Shell short, subconate, radiately striated; anteriorly very short, rounded, inflated, rayed with thin striae; posteriorly rather attenuated, angular, rayed with raised, sharp ribs, truncated at the end; dorsal margin sloped.

DESHAYES. Proc. Zool. Soc., 1853.
Hab. Chinese Seas.

Differing from *Petricola lithophaga* in having strong sharp ribs behind the posterior angle.

Species 14. (Mus. Brit.)

PETRICOLA BIPARTITA. *Pet. testâ breviusculâ, subconatâ, anticè brevi, inflatâ, divaricatim striatâ; posticè subattenuatâ, angulatâ, post angulum costas validis serratis radiatâ, ad terminum truncatâ; umbonibus prominentibus, acutis; margine dorsali declivi.*

THE BIPARTITE PETRICOLA. Shell rather short, subconate, anteriorly short, inflated, divergently striated; posteriorly rather attenuated, angular, rayed behind the angle with strongly serrated ribs, truncated at the end; umbones prominent, sharp; dorsal margin sloped.

DESHAYES. Proc. Zool. Soc., 1853.
Hab. Island of Samar, Philippines.

Species 15. (Mus. Brit.)

PETRICOLA SOLIDA. *Pet. testâ subgloboseâ, solidâ, inflatâ, per se umbones utrinquè violaceo-fuscâ, concentricè distanter laminatâ, radiatim serrato-costellatâ; latere antico brevi, rotundo; latere postico subacuminato.*

THE SOLID PETRICOLA. Shell rather globose, solid, inflated, violet-brown on each side of the umbones, concentrically distantly laminated, with radiating serrated small ribs; anterior side short, round; posterior side rather acuminate.

SOWERBY. Proc. Zool. Soc., 1834.
Hab. Peru.

Collected by the late Mr. Cuming in hard clay and stones at Lambzeque.



16



17



18



19



20



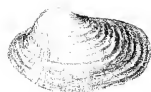
20¹



21



22



23



24

PETRICOLA.

PLATE III.

Species 16. (Mus. Brit.)

PETRICOLA BERGINOSA. *Pt. testâ tenui, coloribus scatis, subhumbolâ, omnino divaricatis striatâ; latere antico breviusculo, obliquè subtruncatâ; umbonibus prominentibus, margine dorsali subdelevi; latere postico obliquè angulatâ, ad marginem ventralem acuminatâ.*

THE IRIS-COLOURED PETRICOLA. Shell thin, reddish-violet, rather rhomboidal, everywhere divergently striated; anterior side rather short, obliquely somewhat truncated; umbones prominent, dorsal margin a little sloped; posterior side obliquely angular, acuminated at the ventral margin.

ADAMS AND ANGAS (Natalia, Proc. Zool. Soc. Hab. — ?)

Species 17. (Mus. Hamley.)

PETRICOLA BEGOLÆ. *Pt. testâ ovato, tenui, radiatim minutè striatâ, utriusque hiantis, antice rotundatâ, brevi; postice obliquè subattenuatâ, maculâ triangulâ fuscâ post angulum pictâ.*

THE TWO-COLOURED PETRICOLA. Shell ovate, thin, radiately minutely striated, gazing at each end, anteriorly rounded, short; posteriorly a little attenuated, painted with a triangular patch of brown.

OWERLY, *Thesaurus Conchyliorum, Petricola, f. 22.*
Hab. — ?

Of the same form, and belong to the same group as *Petricola lithophaga*, but equally striated, and presenting a triangular patch of colour on one side, a very unusual thing in the genus.

Species 18. (Mus. — ? copied.)

PETRICOLA SEMILAMELLATA. *Pt. testâ parvâ, subconvexâ, brevi; antice concentricè tenuiter striatâ; postice angulatâ, post angulum lamina prominentibus exfoliatâ; margine dorsali declivi; margine ventrali inflato.*

THE HALF-LAMINATED PETRICOLA. Shell small, rather cubicated, short; anteriorly concentrically finely striated; posteriorly angular, exfoliated behind the angle with prominent lamina; dorsal margin sloped; ventral margin inflated.

LAMARCK, *Anim. sans Vert. Petricola, No. 3.*
Hab. Rochelle.

The lamina on the hinder part will prevent this species being confounded with *Petricola lithophaga*, which it otherwise resembles.

Species 19. (Mus. Sowerby.)

PETRICOLA ÆQUISTRATA. *Pt. testâ oblongâ, pholadiformi, striis radiatibus numerosis crenulatis, aequalibus, et striis concentricis crenulatis, minutè cancellatâ, postice intus cæcisque maculâ fuscâ triangulâ pictâ; latere antico breviusculo, rotundo; medio radiâ inflato; latere postico subattenuato, obliquè subtruncatâ; margine dorsali excavato.*

THE EQUAL-STRIATED PETRICOLA. Shell oblong, pholad-shaped, minutely cancellated with numerous crenulated, equal, radiating striae, painted posteriorly inside and out with a triangular patch of brown; anterior side rather short, rounded; middle much inflated; posterior side rather attenuated, obliquely subtruncated; dorsal margin excavated.

OWERLY.
Hab. — ?

Differing from *Petricola denticulata* in the rounded anterior side and equal decussation.

Species 20. (Fig. *a, b*, Mus. Sowerby.)

PETRICOLA ROBUSTA. *Pt. testâ globoso-convexâ, extus subconvexâ, intus fusco-nigriscenti; latere antico convexâ inflato, rotundo, brevi, liris acutis numerosis radiato; latere postico attenuato, angustato, subangulatâ, ante angulum depresso, contracto, post angulum acutè et conspicuè costato, ad terminum truncato; umbonibus elevatis, margine dorsali radiâ declivi.*

PETRICOLA.—PLATE III.

THE ROBUST PETRICOLA. Shell globose-cuneate, bluish without, blackish-brown within; anterior side much inflated, rounded, short, rayed with sharp numerous ridges; posterior side attenuated, narrow, rather angular, depressed and contracted in front of the angle, sharply and conspicuously ribbed behind the angle, truncated at the end; umbos raised, dorsal margin much sloped.

SOWERBY. Proc. Zool. Soc., 1834.

Hab. Panama.

Species 21. (Mus. Sowerby.)

PETRICOLA TYPICA. *Pet. testâ brevi, inflatâ, subglobosâ, cuneatâ, anticè rotundâ, ventricosâ, tenuiter radiatim striatâ; posticè subattenuatâ, versùs terminum costellis acutis radiatâ, ad terminum denticulatâ, truncatâ; margine dorsali antè umbones excavato, post umbones delivâ.*

THE TYPICAL PETRICOLA. Shell short, inflated, sub-globose, cuneate, anteriorly rounded, ventricose, finely radiately striated; posteriorly somewhat attenuated, towards the end rayed with conspicuous sharp ridges, denticulated, truncated at the end; dorsal margin excavated before the umbos, sloped behind them.

JONAS. Moll. Beitr., p. 2, pl. VII. f. 3.

Hab. Isl. St. Thomas.

Almost as globose in front as *Petricola robusta*. The ribs are finer, and increase gradually towards the end. The shell is much less cuneiform than *P. lithophaga*.

Species 22. (Mus. Sowerby.)

PETRICOLA BIVARIATA. *Pet. testâ solidâ, subtrapezoidâ, omnino divaricatim tenuiter striatâ; anticè brevissimâ, umbonibus terminalibus; posticè obliquè truncatâ; margine terminali incrassato, foliaceo.*

THE DIVERGENT PETRICOLA. Shell solid, rather trapezoidal, all over divergently finely striated; anteriorly very short, umbos terminal; pos-

teriorly obliquely truncated; terminal margin thickened, foliated.

CHEMNITZ. Conch., pl. CLXXII. f. 1666-1667.

Narvina divaricata, Gray.

Hab. New Holland.

Species 23. (Mus. Brit.)

PETRICOLA VENTRICOSA. *Pet. testâ oblongâ, inflatâ; anticè subrotundâ, tenuiter decussatâ; posticè crenulatâ, sublamellatâ, subattenuatâ, ad terminum truncatâ, intùs fusco pictâ.*

THE VENTRICOSE PETRICOLA. Shell oblong, inflated; anteriorly somewhat rounded, finely decussated; posteriorly crenulated, rather laminated, a little attenuated, truncated at the end, painted brown within.

DESHAYES. Proc. Zool. Soc.

Hab. Panama.

A much more ventricose shell than *Petricola denticulata*, not beaked in front, laminated at the end.

Species 24. (Mus. Sowerby.)

PETRICOLA LAPICIDA. *Pet. testâ solidâscellâ, subtrapezoidâ, omnino divaricatim tenuiter striatâ; anticè brevi; umbonibus subterminalibus; posticè protractâ, rotundatim angulatâ, post angulum costellis acutis, conspicuis, radiatâ; ad terminum truncatâ.*

THE STONE-DESTROYING PETRICOLA. Shell rather solid, rather trapezoidal, all over divergently finely striated; anteriorly short; umbos nearly terminal; posteriorly produced, roundly angular, rayed behind the angle with sharp, conspicuous small ribs; truncated at the end.

CHEMNITZ. Conch., pl. CLXXII. f. 1664-1665.

Narvina costata, Gray.

Hab. Australia. Mauritius.

Differing from *Petricola divaricata* in having strong sharp ribs at the posterior end.

PETRICOLA.

	Plate	Species		Plate	Species
<i>castrata</i> , <i>Sowerby</i>	III.	19	<i>inerta</i> , <i>Sowerby</i>	II.	10
<i>color</i> , <i>Sowerby</i>	III.	17	<i>lapidula</i> , <i>Chamnitz</i>	III.	24
<i>quartita</i> , <i>Sowerby</i>	II.	11	<i>lilopluga</i> , <i>Retzius</i>	II.	11
<i>Clunensis</i> , <i>De Slates</i>	II.	13	<i>nivea</i> , <i>Chamnitz</i>	II.	8
<i>concinna</i> , <i>Sowerby</i>	I.	3	<i>phthaliformis</i> , <i>Lamarck</i>	I.	7
<i>costata</i> , <i>Gray</i>	III.	24	<i>robusta</i> , <i>Sowerby</i>	III.	20
<i>costulata</i> , <i>Lamarck</i>	II.	11	<i>ocellaria</i> , <i>Lamarck</i>	II.	11
<i>cutellus</i> , <i>De Slates</i>	I.	6	<i>rufiginosa</i> , <i>Abams and Angus</i>	III.	16
<i>diactylus</i> , <i>Sowerby</i>	I.	4	<i>rufosa</i> , <i>Sowerby</i>	II.	8
<i>excussata</i> , <i>Turton</i>	II.	11	<i>rupicola</i> , <i>Blainville</i>	II.	11
<i>fonticulata</i> , <i>Sowerby</i>	II.	9	<i>semilamelata</i> , <i>Lamarck</i>	III.	18
<i>invaricata</i> , <i>Gray</i>	III.	22	<i>serrata</i> , <i>De Slates</i>	I.	4
<i>leuzans</i> , <i>De Slates</i>	I.	5	<i>solida</i> , <i>Sowerby</i>	II.	15
<i>longica</i> , <i>Sowerby</i>	II.	12	<i>tonis</i> , <i>Sowerby</i>	II.	8
<i>longata</i> , <i>Say</i>	II.	8	<i>striata</i> , <i>Lamarck</i>	II.	11
<i>longata</i> , <i>Middlebort</i>	II.	8	<i>typica</i> , <i>Jowar</i>	III.	24
<i>maculis</i> , <i>De Slates</i>	I.	2	<i>ventricosa</i> , <i>De Slates</i>	III.	23

MONOGRAPH

OF THE GENUS

A S T A R T E.

"And thou, majestic man,
A secret world of wonders in thyself,
Sound His stupendous praise."—*Thompson.*



1^a



2^a



2^b



3^a



4



5



3^b



6



7



1^b

A S T A R T E.

PLATE I.

Genus ASTARTE, *J. Sowerby.*

Testa equilateralis, inaequilateralis, subovata, vel orbiculari, vel subtriangulari, plerumque subcompressa; concentricè rugata, epidermide crassa indurata, clausa. Impressiones musculares duae, magna, subcylindrica. Impressio pallii integra. Cardio utriusque valvæ tridentata. Ligamentum externum, area dorsali et lunula excavatis.

Shell equivalve, inequilateral, subovate, or orbicular, or subtriangular, generally subcompressed; concentrically wrinkled, covered with a thick epidermis, closed. Muscular impressions two, large, rather kidney-shaped. Impression of the mantle entire. Hinge tridentate in each valve. Ligament external, with dorsal area and lunule excavated.

Syn. Crassina, *Linnae.* Tridenta, *Schum.*

The shells of this genus are not liable to be confounded with those of any other, the several characters included in the description being pretty constant in all. The minute *Astarte trigonalis* is the only exception, and is very abnormal in form. The concentric wrinkles have in most species a tendency to become less prominent towards the centre, and even to disappear altogether towards the margin of the shell. All the species, excepting the Mediterranean *A. fusca*, inhabit northern seas; Norway, Greenland, North America, &c., being the chief places in whose sandy shores they burrow.

Species 1. (Fig. *a, b*, Mus. Sowerby.)

ASTARTE CASTANEA. *Ast. testâ suborbiculari, altâ, obsolete radiatâ subovâ; rugis concentricis distantibus, rix prominentibus; costis marginem subelevatis, latere antico brevissimo; umbonibus prominentibus; margine dorsali atrimpè valdè declivi.*

THE CHESTNUT ASTARTE. Shell suborbicular, elevated, absolutely radiately grooved; concentric wrinkles distant, scarcely prominent, partly disappearing towards the margin, anterior side very short;

umboes prominent; dorsal margin much sloped on each side.

SAY, American Journal of Science, 1830, Conch. Pl. I. *Astarte crassidens*, Brod. and Sowb.?

Hab. Arctic Seas.

Species 2. (Fig. *a, b*, Mus. Brit.)

ASTARTE COMPRESSA. *Ast. testâ parvâ, suborbiculari, compressâ, plusminusve elevatâ; rugis concentricis parvis; umbonibus promincantibus, marginibus dorsalis valdè declivis; latere antico brevissimo; latere postico rix truncato.*

THE COMPRESSED ASTARTE. Shell small, suborbicular, compressed, more or less elevated; concentric wrinkles small; umboes prominent, dorsal margin much sloped; anterior side very short; posterior side scarcely truncated.

MONYER (Venus). Testacea Britannica, Sup., p. 43.

Venus Montaguî, Dillwyn.

Astarte striata, Gray.

Astarte multicoscata, Macgillivray.

Hab. Great Britain and Norway.

The varieties differ in form and elevation, and some specimens are more compressed than others.

Species 3. (Fig. *a, b*, Mus. Sowerby.)

ASTARTE SULCATA. *Ast. testâ subquadratâ vel orbiculari-subtriangulari; sulcis concentricis profundis, regularibus; latere antico brevi; latere postico subangulato, truncato; margine dorsali rectiusculo vel subrotundatâ declivi; margine interno interdum denticulato.*

THE GROOVED ASTARTE. Shell subquadrate or orbicularly subtriangular; concentric ridges deep, regular; anterior side short; posterior side somewhat angular, truncated; dorsal margin rather straight, or somewhat roundly sloped; inner margin sometimes denticulated.

COSTA (Pectunculius). Brit. Conch., p. 192.

Crassina Damonienis, Lamarck.

Crassina Scotica, Turton.

Venus crassatella, Blainville.

Hab. Northern British Seas.

The normal form of this species is angular and truncated, but in some varieties this peculiarity is lost, and the dorsal line is sloped. The variety named *Scotica* sometimes occurs smooth on the inner edge.

Species 4. (Mus. Brit.)

ASTARTE ELLIPTICA. *Ast. testâ compressâ, oblongo-ovată; latere postico producto, ad terminum subtruncato; sulcis concentricis medio et infra obsolete; umbonibus acuminatis; margine postico-dorsali leviter declivi.*

THE ELLIPTIC ASTARTE. Shell compressed, oblong-ovate; posterior side produced, rather truncated posteriorly; concentric grooves obsolete in the middle and under; umboes acuminated; posterior dorsal margin gently sloped.

BROWN. Illus. Conch., p. 96, Pl. XXXVIII. f. 3.

Astarte semisulcata, Muller, not Leach.

Crassina sulcata, Nilson.

Crassina ovata, Brown.

Hab. Northern Europe.

Species 5. (Mus. Brit.)

ASTARTE SUBEQUILATERA. *Ast. testâ ovată, compressâ; latere antico paulò breviori, declivi; umbonibus obtusis, haud prominentibus; latere postico subangulato, ad terminum subtruncato; margine ventrali convexo; rugis concentricis crebris, ad latera subevanidis.*

THE SUBEQUILATERAL ASTARTE. Shell ovate, compressed; anterior side a little shorter, sloped; umboes obtuse, not prominent; posterior side

rather angular, rather truncated at the end; ventral margin convex; concentric wrinkles crowded, somewhat evanescent at the sides.

SOWERBY. Thesaurus Conchyliorum, Astarte, No. 6.

Hab. Newfoundland.

The umboes in this species are obtuse, and more nearly central than in most others.

Species 6. (Mus. Sowerby.)

ASTARTE ABBREVIATA. *Ast. testâ parvâ, crassissimâ, suborbiculari, altâ, brevi, crebrè et æqualiter sulcatâ; latere antico brevissimo, valdè declivi; latere postico subquadrato; umbonibus elevatis, rotundis, margine dorsali declivi, margine interno levi.*

THE ABBREVIATED ASTARTE. Shell small, very thick, suborbicular, elevated, short, finely and equally grooved; anterior side very short, much sloped; posterior side subquadrate; umboes elevated, rounded, dorsal margin sloped, inner margin smooth.

SOWERBY.

Hab. — ?

Species 7. (Mus. Brit.)

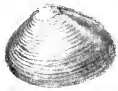
ASTARTE BANKSII. *Ast. testâ tumidâ, suborbiculatâ, altâ; crebrè et sulcatâ; umbonibus elevatis; latere antico propè umboes excavato, crebris marginem ventralem producto, rotundato; latere postico autè angulum vix conspicuum posticum subdepresso; margine dorsali convexo declivi.*

BANKS'S ASTARTE. Shell tumid, suborbicular, elevated; very closely grooved; umboes raised; anterior side excavated near the umboes, produced towards the ventral margin, rounded; posterior side a little depressed in front of a scarcely perceptible posterior angle; dorsal margin convexly sloped.

LEACH. Ross's Voyage, Appendix.

Astarte pulchella, Jonas.

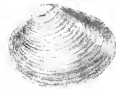
Hab. Greenland.



9^a



5



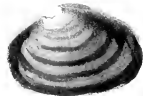
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10



11



7



13



14



15



16

ASTARTE.

PLATE II.

Species 8. (Mus. Brit.)

ASTARTE QUADRATA. *Ast. testâ quadrato-subtriangulâ, compressâ, altâ, subquadrate ribi, tenuissimâ, tenuiter striatâ; latere antico breviori, latere postico breviori; laci, ad terminum subtruncato; margine interno levigato.*

THE QUADRATE ASTARTE. Shell rather square, sub-triangular, compressed, elevated, rather equilateral, rather thin, finely striated; anterior side rather the shorter; posterior side obliquely sloped, somewhat truncated at the end; inner margin smooth.

GOULD. Invertebrata of Massachusetts, p. 81, f. 18.

Hab. North America.

Species 9. (Fig. a, b, Mus. Brit.)

ASTARTE CRISTATA. *Ast. testâ ovata, inflata, tenuissimâ, anticâ usque ad medium concentricâ tenuiter levatâ, posticâ levigatâ, epidermidâ tenui, flavidâ; cardine angusto; margine ventrali intus crenato.*

THE CRISTATE ASTARTE. Shell ovate, inflated, rather thin anteriorly, as far as the middle concentrically finely ridged, posteriorly smooth; epidermis thin, yellowish; hinge narrow; ventral margin crenated within.

GRAY. Brit. Mus.

Astarte oblonga, Sowerby.

Hab. —?

On careful examination I am able to identify the shell I called *Astarte oblonga*, with the specimens of Dr. Gray's *A. crinata*. The latter are younger shells.

Species 10. (Mus. Brit.)

ASTARTE CEREBRIGATA. *Ast. testâ ovato-subtriangulâ, compressâ; costis concentricis numerosis, crebris, post angulum posticum vapidis; latere antico rotundo, breviusculo; latere postico producto, angulato, post angulum brevigato, planato; margine dorsali obliquè declivi, ad terminum truncato.*

THE CLOSE-RIPPED ASTARTE. Shell ovate-subtriangular, compressed; concentric ribs numerous, crowded, disappearing behind the posterior angle; anterior side rounded, rather short; posterior side produced, angular, smooth and flat behind the angle; dorsal margin obliquely sloped, truncated at the end.

FUERB. Ann. Nat. Hist., vol. xix, p. 98.

Hab. North Britain.

The early figures of this shell were taken from one or two dead specimens deprived of their epidermis. There are now fresh specimens in the British Museum.

Species 11. (Mus. Brit.)

ASTARTE UNDATA. *Ast. testâ ovato-subtriangulâ, altâ; rugis concentricis magnis, distantibus, post angulum posticum subobsoletis; umbonibus acuminatis; latere antico brevi; latere postico obliquè producto; margine interno crenato.*

THE WAVY ASTARTE. Shell ovate-subtriangular, elevated; concentric wrinkles large, distant, rather obsolete behind the posterior angle; umbones acuminated, anterior side short; posterior side obliquely produced; inner margin crenulated.

GOULD. Invertebrata of Massachusetts.

Astarte laticosta, Hanley.

Hab. North America.

Normally a more trigonal or sloping shell than *Astarte subvata*, with the ribs far more strong and distant.

Species 12. (Mus. Hanley.)

ASTARTE SEMISULCATA. *Ast. testâ oblongâ, subcompressâ, versùs umbones tenuiter rugatâ; latere antico breviusculo, margine dorsali propè umbones crenato; latere postico producto, ad terminum truncato, margine dorsali rectiusculo.*

THE HALF-GROOVED ASTARTE. Shell oblong, subcom-

pressed, finely wrinkled towards the umbones; anterior side rather short, with dorsal margin excavated near the umbones; posterior side produced, truncated at the end, with dorsal margin rather straight.

LEACH (Crassina). Ann. Phil. 14, fig. 204.

Hab. North Seas.

Species 13. (Mus. Brit.)

ASTARTE INTERMEDIA. *Ast. testâ ovato-subtriangulâ, utriusque subacuminatâ; rugis numerosis, rotundis, propè marginem posteriorem subconoidis; umbonibus elevatis, margine dorsali utriusque declivibus; margine interno laevi.*

THE INTERMEDIATE ASTARTE. Shell ovate-subtriangular, rather acuminate at each end; wrinkles numerous, rounded, partly disappearing near the posterior margin; umbones elevated, dorsal margin sloped at each side; inner edge smooth.

SHOWBRY. Thesaurus Conchyliorum, Astarte, Sp. 3.

Hab. North Europe.

Resembling *Astarte undata* in form, but more pointed, and having many more ribs than *A. sulcata*; almost as many as *Astarte crebricostata*.

Species 14. (Mus. Brit.)

ASTARTE MORTONI. *Ast. testâ ovato-suborbiculari, compressâ; rugis concentricis distantibus, calidis, versis marginis utriusque discooidis; interstitiis latis, profundè excavatis; umbonibus obtusis; latere antico laevi, rotundo; latere postico producto, obscurè truncato; margine ventrali rotundatim convexo; margine interno levigato.*

MORTON'S ASTARTE. Shell ovate-suborbicular, compressed; concentric wrinkles distant, strong, discontinued near the margin on each side; interstices broad, deeply excavated; umbones obtuse; anterior side short, rounded; posterior side produced, obscurely truncated; ventral margin roundly convex; inner margin smooth.

ADAMS — ?

Astarte undata, var. ? Sowerby in Thesaurus.

Hab. North America.

My only authority for this species is a specimen named as above in the Cumingian collection; not the undeveloped shell quoted in the Thesaurus, but a mature shell of rounded form and dark black epidermis.

Species 15. (Mus. Sowerby.)

ASTARTE SEMILIBATA. *Ast. testâ ovato-subtriangulâ, elevatâ, medio obliquè tumidâ; latere antico obliquè producto, infiri umbones excavato; umbonibus retrorsis, prominentibus, acuminatis; latere postico declivi, obscurissimè truncato, margine ventrali aequali; rugis concentricis versis umbones ann. visis, concinnis, acutis, medio et infiri evanidis.*

THE HALF-EDGED ASTARTE. Shell ovate-subtriangular, elevated, obliquely tumid in the middle; anterior side obliquely produced, excavated under the umbones; umbones leaning backwards, prominent, acuminated; posterior side sloped, very obscurely truncated, ventral margin sloped upwards; concentric ridges near the umbones numerous, neat, sharp, becoming obscure at the middle and below.

SHOWBRY.

Hab. Northern Seas.

Species 16. (Mus. Brit.)

ASTARTE TRIANGULARIS. *Ast. testâ parvâ, altâ, obliquè triangulâ, tumidâ, politâ; umbonibus prominentibus, firè terminalibus; latere antico firè perpendiculari; latere postico declivi, ad marginem ventralium producto; margine interno crenulato.*

THE TRIANGULAR ASTARTE. Shell small, elevated, obliquely triangular, tumid, polished; umbones prominent, nearly terminal; anterior side almost perpendicular; posterior side sloped, produced at the ventral margin; inner margin crenulated.

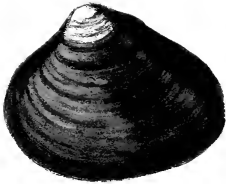
MONTAGU (Mactra). Test. Brit., p. 99, pl. 3, f. 5.

Godallia triangularis, Turc.

Hab. North Britain.



17^a



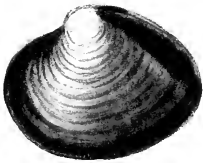
18



19



20



21



22



17^b

A S T A R T E.

PLATE III.

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

ASTARTE FUSCA. *Ast. testâ suborbiculari, crassa, castanea, rubro obscure radiatâ, præpè umbones concentricâ, crebri et concinnâ lineatâ; umbonibus subterminalibus, latere antico hirsutissimo; margine ventrali retundato, margine postico-terminali subtruncato.*

THE BROWN ASTARTE. Shell rather orbicular, thick, chestnut, obscurely rayed with red, concentrically, closely, and neatly ridged near the umbones; umbones nearly terminal; anterior side very short; ventral margin rounded, posterior terminal margin slightly truncated.

POLI (Tollina). Test. Sic. Tab. 15. f. 22. 23.

Hab. Mediterranean.

Species 18. (Mus. Brit.)

ASTARTE LACTEA. *Ast. testâ magis compressâ, ovato-subtriangulâ, epidermide crassa, nigra indutâ, præpè umbones tenuiter concentricè lineatâ, intus lacteâ; latere antico brevi, declivi; latere postico obliquè producto; margine dorsali declivi, ad terminum subtruncato; margine interno levigato.*

THE MILK-WHITE ASTARTE. Shell large, compressed, ovate, subtriangular, covered with a thick black epidermis, finely concentrically ridged near the umbones, milk-white within; anterior side short, sloped; posterior side obliquely produced, dorsal margin sloped, somewhat truncated at the end; inner margin smooth.

BRODIEP. Zoological Journal, vol. iv. p. 356.

Hab. North Europe.

The wrinkles, although fine and distinct near the umbones, are continued a very little way from them in most specimens.

Species 19. (Mus. Brit.)

ASTARTE PROBUCA. *Ast. testâ oblongo-ovata, compressâ, ad umbones, et firè ad medium tenuiter et regulariter lineatâ, versus marginem levigatâ; latere antico paulò producto; latere postico elongato, ad terminum subacuminato; margine dorsali leviter declivi; margine interno levigato.*

THE PROBUCE ASTARTE. Shell oblong-ovate, compressed, finely and regularly ridged at the umbones and nearly as far as the middle, smooth towards the margin; anterior side a little produced; posterior side elongated, rather acuminate at the end; dorsal margin slightly sloped; inner margin smooth.

SOWBRY.

Hab. North Europe.

The difference between this species and *Astarte lactea* is the same as that which causes *Ast. elliptica* to be separated from *Ast. sulcata*, namely, a prolongation in form.

Species 20. (Mus. Brit.)

ASTARTE SUBTRIANGULA. *Ast. testâ crassâ, subtriangulâ, epidermide castaneo indutâ, intus ad marginem brevius, versus umbones et ad medium subirregulariter lineatâ, medio ad marginem brevi; latere antico tumido, subrotundo; latere postico angulato, antè angulum compresso; margine dorsali valdè declivi.*

THE SUBTRIANGULAR ASTARTE. Shell thick, subtriangular, covered with a chestnut epidermis, smooth at the margin within, rather irregularly ridged towards umbones and to the middle, from the middle to the margin smooth; anterior side tumid, rather

ASTARTE.—PLATE III.

round; posterior side angular, compressed in front of the angle, dorsal margin much sloped.

SOWLEY.

Hab. Northern Seas.

This shell is so decidedly different in form from the normal specimens of *Astarte arctica*, that it seems desirable to separate it.

Species 21. (Fig. *a, b*, Mus. Brit.)

ASTARTE ARCTICA. *Ast. testâ elliptico-suborbiculari, subcompressâ, præ umbones medioque subirregulariter lirata, versus marginem lævigatâ; latere antico brevissimo; latere postico obscure angulato,*

truncato; margine dorsali declivi; margine ventrali rotundo, intus lævigato.

THE ARCTIC ASTARTE. Shell elliptical-suborbicular, subcompressed, rather irregularly ridged near the umbones and at the middle, smooth towards the margin; anterior side very short; posterior side obscurely angular, truncated; dorsal margin sloped; ventral margin rounded, smooth within.

GEAY (Crassina). App. Capt. Parry's Voyage.

Venus borealis, Clenmitz.

Astarte cyprinoides, Duval.

Crassina corrugata, Brown.

Astarte Japonica, Jay?

Hab. Northern Seas.

A S T A R T E.

	Plate	Fig.		Plate	Species
<i>abbreviata</i> , Sowerby	I.	6	<i>Montagui</i> , Dillwyn	I.	2
Arctica, Gray	III.	21	Mortoni, Adams	II.	14
Bankii, Leach	I.	7	<i>multicostata</i> , Macgillivray	I.	2
<i>borealis</i> , Chemnitz	III.	21	<i>obsoleta</i> , Sowerby	II.	9
castanea, Say	I.	1	<i>opata</i> , Brown	I.	4
compressa, Montagu	I.	2	producta, Sowerby	III.	19
<i>convexata</i> , Brown	III.	21	<i>puberula</i> , Jonas	I.	7
<i>crassidens</i> , Brod. and Soub.	I.	1	quadrans, Gould	II.	8
<i>crassifolia</i> , Blainville	I.	3	<i>Scotica</i> , Turton	I.	3
<i>erebri-costata</i> , Forbes	II.	10	semilipata, Sowerby	II.	15
erosata, Gray	II.	9	semisulcata, Leach	II.	12
<i>egginoides</i> , Duvai	III.	21	<i>semisulcata</i> , Muller	I.	4
<i>Dumouliérens</i> , Lamarek	I.	3	<i>striata</i> , Gray	I.	2
elliptica, Brown	I.	4	subaequilatera, Sowerby	I.	5
fusca, Poli	III.	17	subtrigona, Sowerby	III.	26
intermedia, Sowerby	II.	13	<i>sulcata</i> , Nilson	I.	4
<i>Japonica</i> , Jay?	III.	21	sulcata, Costa	I.	3
laeta, Broderip	III.	18	triangularis, Montagu	II.	16
<i>latiuscula</i> , Hanley	II.	11	undata, Gould	II.	11

MONOGRAPH
OF THE GENUS
VENERUPIS.

"Ocean exhibits fathomless and broad,
Much of the pow'r and majesty of God." — *Corpus*.



VENERUPIS.

PLATE I.

Genus, VENERUPIS, Lamarck.

Testa valde inequaliter, inequilateralis, aequaliter, oblonga, plusquam concentricè laminata, radiatum striata, antice parvis lobis. Impressiones muscularis decem, magna, aequaliformis. Impressio pallii postice lateri et profunde sinuata. Cardo in valva dextra tritrid abaxi, in valva sinistra bidentata. Ligamentum externum.

Shell very irregular, inequilateral, equivalve, oblong, generally concentrically laminated, radiately striated, anteriorly a little gaping. Muscular impressions two, large, kidney-shaped. Pallial impression posteriorly and deeply sinuous. Hinge tridentate in right valve, and bidentate in the left. Ligament external.

Sp. N. Linn. Oken. RUFFELLARIA, Fl. de Bellevue.

The shells of this genus are found in holes and crevices of rocks, where they are fixed by a byssus passing between the gaping valves. It is rather difficult to distinguish some of the species from the more irregular rock-inhabiting Tapes on the one hand, and the more Tapes-like Petricole on the other. The concentric laminae, however, are the more prominent in this genus; whereas the reverse is the case in the Petricole, and the posterior side is generally truncated, and does not tend to end in a point. The Venerupes are more numerous in northern and temperate climates; many species are European, being found in Scandinavia and the British Islands. There are, however, some species in Australia, and some in the Philippines.

Species 1. (Mus. Brit.)

VENERUPIS CORMELI. *Testa oblonga, inflata, subcylindrica, laminae concentricè crassis, postice bilobibus, inflatis exfoliatis; latere antico brevi, declivi, infra subocuminate; umbonibus acuminatis,*

subterminalibus; latere postico elongato, obliquè angulato; margine dorsali rectiusculo, margine terminali perpendiculari.

CORMEL'S VENERUPIS. Shell oblong, inflated, rather cylindrical, exfoliated with concentric laminae, wider and inflected posteriorly; anterior side short, sloped, a little acuminated below; posterior side elongated, obliquely angular; dorsal margin rather straight, terminal margin perpendicular.

DESHAYES, Revue Zoologique, 1839.

Hab. California.

Species 2. (Fig. a, b, Mus. Brit.)

VENERUPIS INEQUIS. *Testa inflata, irregulari radiatum striata, aurantia, cruribus purpureoque nublata, latere rubro-violacea; latere antico brevissimo; umbonibus fere terminalibus; latere postico producto, obliquè tumido, margine terminali superne declivi.*

THE WORMEVEL VENERUPIS. Shell inflated, irregular radiately striated, orange, clouded with blue and purple, red-violet within; anterior side very short; umbones nearly terminal; posterior side produced, obliquely tumid, terminal margin sloped above.

DESHAYES, Proc. Zool. Soc., 1853.

Hab. New Zealand.

Of very rich colour and very irregular growth.

Species 3. (Mus. Brit.)

VENERUPIS CRENATA. *Testa oblongo-subquadrata, postice obliquè angulata, aurantia purpureoque nublata, radiatum striata, concentricè laminae crenatis, cruribus, postice latioribus exfoliatis; latere antico brevi, umbonibus tumidis, subterminalibus; latere postico elongato, margine rectangulati.*

November, 1874.

VENERUPIS.—PLATE I.

THE CRENATED VENERUPIS. Shell oblong-subquadrate, posteriorly obliquely angular, clouded with orange and purple; radiately striated, concentrically exfoliated, with outstanding crenulated laminae, broader posteriorly; anterior side short, umboes tumid, nearly terminal; posterior side elongated, with rectangular margin.

LAMARCK. ANIM. SANS VERT.

Hab. New Holland.

A beautiful shell, highly characteristic of the genus.

Species 4. (Mus. Brit.)

VENERUPIS MIRABILIS. *Ven. testâ oblongo-subquadrata, valde inflata, omnino striis angulatis dicaricatis minutissimè sculptâ; latere antico brevi, rotundo; umboibus inflatis; latere postico producto, obtusè angulato.*

THE ADMIRABLE VENERUPIS. Shell oblong-subquadrate, much inflated, very minutely sculptured in every part with angularly diverging striae; anterior side short, rounded; umboes inflated; posterior side produced, obtusely angular.

DESHAYES. PROC. Zool. Soc., 1853.

Hab. Monterey, California.

The curious zigzag structure of the surface is similar to that of *Venerupis texta*, but it is very much more minute.

Species 5. (Mus. Sowerby.)

VENERUPIS CARDITOIDES. *Ven. testâ pallidâ, oblongâ, concentricè laminis extantibus, subcrenatis, distantibus, posticè latioribus exfoliatis, sulcis subdistantibus, inequalibus, angulatis radiatis; latere antico brevi, umboibus depressis; latere postico oblongo, cuneato, obliquè angulato, margine terminali sub-obliquè truncato.*

THE CARDITA-LIKE VENERUPIS. Shell pale, oblong, concentrically exfoliated with outstanding slightly crenated distant laminae, wider posteriorly, rayed with rather distant unequal, angular sulci; anterior side short, umboes depressed; posterior side oblong, cornered, obliquely angular, terminal margin rather obliquely truncated.

LAMARCK. ANIM. SANS VERT.

Hab. New Holland.

The distance of the ribs or sulci from each other varies in different specimens and in different parts of the same shell, but there are generally a few broader ones a little in front of the posterior oblique angle.



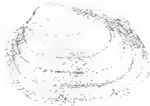
7



6



5



4



11^a



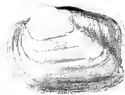
10^b



12



12^a



11^b



13

VENERUPIS.

PLATE II.

Species 6. (Mus. Brit.)

VENERUPIS PUSILLA. *Ven. testâ parvâ, tenui, pallidâ, antec. tenuiter, posticè latè laminatâ, lamina posticè biangulatis, ad angulos subspinâris, later angulos ingulatis, latere antico brevissimè angustâ; latere postico obliquè angulata, lato, margine dorsali terminali rectangulari.*

THE TWO-SIDED VENERUPIS. Shell small, thin, pale, anteriorly thin, posteriorly widely laminated, lamina posteriorly biangular, rather spinose at the angles, bent inwards between the angles; anterior side very short, narrow; posterior side obliquely angular, broad, dorso-terminal margin rectangular.

DISHAYES — ?

Hab. — ?

Species 7. (Mus. Sowerby.)

VENERUPIS ALIQUATA. *Ven. testâ elongatâ, cylindricâ, radiatim minutè striatâ; intus latâ, propè marginem terminalem purpureo coloratâ; latere antico brevissimè, umbonibus fixè terminalibus; latere postico elongatâ, obliquè angulata, antè angulum subcontracta; post angulum irregulariter laminata, ad terminum truncata.*

THE ALIQUAT VENERUPIS. Shell elongated, cylindrical, radiately minutely striated; yellowish within, clouded with purple near the terminal margin; anterior side very short, umbones nearly terminal; posterior side elongated, obliquely angular, a little contracted in front of the angle; irregularly laminated behind the angle, truncated at the end.

SOWERBY.

Hab. — ?

A curious little cylindrical species.

Species 8. (Mus. Brit.)

VENERUPIS BREVILATA. *Ven. testâ elongatâ, radiatim striatâ, concentricè lamina crenulatâ, posticè productioribus cefalatis; latere postico lato, obliquè subquadrato; latere antico acuminatim producto; margine centrali contracto.*

THE SINGLE-SIDED VENERUPIS. Shell elongated, radiately striated, concentrically exfoliated with crenulated lamina, more produced posteriorly; posterior side broad, obliquely subquadrate; anterior side acuminately produced; ventral margin contracted.

DISHAYES. Proc. Zool. Soc., 1853.

Hab. Philippines.

Species 9. (Mus. Brit.)

VENERUPIS TRIATA. *Ven. testâ oblongo-subquadratâ, tenui, ingulatâ, pallidâ, stria rugosis angulatum divaricatis univo sculptâ; latere antico brevissimè, rotundo; medio planulato, lato; latere postico producto, obscurissimè angulato; margine dorsali rix declivi; margine centrali rectiusculo.*

THE TEXTURED VENERUPIS. Shell oblong-subquadrate, thin, inflated, pale, sculptured all over with rough, angularly divergent striae; anterior side rather short, rounded; middle flattened, broad; posterior side produced, very obscurely angular, dorsal margin scarcely sloped; ventral margin rather straight.

DISHAYES — ? MS. Mus. Brit.

Hab. N.E. Australia.

Lighter but coarser in texture than *Venerupis mirabilis*.

Species 10. (Fig. a, b, Mus. Brit.)

VENERUPIS FOLIACEA. *Ven. testâ ovato-suborbiculari, compressissimâ, sulcis duplicatis subdistantibus radiatâ, lamina distantibus, crenulatâ exstantibus, tenuibus, latè posticè angulum formatibus cefo-*

VENERUPIS.—PLATE II.

lata intus fluvialia propè marginem rubro-violacei ; latere antico brevissimo, umbonibus depressis ; latere postico angulatum expanso, margine dorsali elevato, subarcuato, margine terminali late truncato ; margine ventrali convexo, intus crenato.

THE LEAFY VENERUPIS. Shell ovate-suborbicular, rather compressed, rayed with duplicate, rather distant grooves; exfoliated with distant, crenulated, outstanding thin broad laminae forming an angle, posteriorly, yellowish within, reddish-violet near the margins; anterior side very short; umbones depressed; posterior side angularly expanded; dorsal margin raised, a little arched, terminal margin broadly truncated; ventral margin convex; crenated within.

DESHAYES. Proc. Zool. Soc., 1853.

Hab. Mazatlan.

It may be a question whether this beautifully ornamental shell should not have been included in the genus *Venus*.

Species 11. (Mus. Hanley.)

VENERUPIS EXOTICA. *Ven. testâ oblongâ, subrectangulâ, albâ, lineis rubris posticè pictâ ; radiatum distans, acutè sulcatâ ; lamina crenatâ, subdistantibus, costantibus, posticè latioribus, angulatis,*

exfoliatâ ; latere antico brevissimo ; latere postico oblongo, margine terminali recto.

THE EXOTIC VENERUPIS. Shell oblong, rather rectangular, whitish, painted with red lines posteriorly; radiately, distinctly, sharply grooved; exfoliated with rather distant, outstanding crenated laminae, wider and angular posteriorly; anterior side rather short; posterior side oblong, terminal margin straight.

HANLEY. Wood's Index Testaceologicus.

Hab. New Holland.

Species 12. (Fig. a, b, c, Mus. Brit.)

VENERUPIS CYLINDRACA. *Ven. testâ levipari, laevigatâ, subcylindricâ, concentricè striatâ, posticè angulatâ, productâ, ad terminum truncatâ.*

THE CYLINDRICAL VENERUPIS. Shell irregular, smooth, subcylindrical, concentrically striated, posteriorly angular, produced, truncated at the end.

DESHAYES (Petricola). Revue Zoologique.

Petricola californica, Conrad.

Petricola arenata, Deshayes.

Petricola subglobosa, Sowerby.

Hab. California.



11^a



13



14^b



15



16



17



18



19



20



21

VENERUPIS.

PLATE III.

Species 13. (Mus. Brit.)

VENERUPIS *sp. n.*. Ven. testâ *imbricâ, laevi, subquadrate, pallidâ, costâs et ad a. abas elevatâ, radiâs et abas antice brevissimâ, laterâ postice expansâ, angulatâ, margine dorsalâ elevatâ.*

THE OBLONG VENERUPIS. Shell inflated, short, subquadrate, pale posteriorly, middle and at the umbones angular, oblong, oval; anterior side very short; posterior side angular, ventral margin convex.

DESHAYES, Proc. Zool. Soc., 1853.

Hab. —?

Described from a specimen in the Cunningham collection.

Species 14. (Fig. a, b, Mus. Hanley.)

VENERUPIS *IMBRIA*. Ven. testâ *pallidâ, floricâ, ventricose, concentricè finè ribbâ, laterâ costatâ, inter costas tenuè et à. stipitâ, anticè brevissimâ, angulatâ, margine dorsalâ postice expansâ, angulatâ, margine dorsalâ elevatâ elevatâ.*

THE TUMID VENERUPIS. Shell pale yellowish, ventricose, concentrically finely ribbed, hollow in the ribs very finely striated, anteriorly very short, narrow, inflated in the middle, posteriorly expanded, angular, dorsal margin angularly elevated.

SOWERBY, Thesaurus Conchyliorum, Venerupis, Sp. 27.

Hab. —?

A pretty little species described from Mr. Hanley's shell.

Species 15. (Mus. Brit.)

VENERUPIS *FULCHERRIMA*. Ven. testâ *elongatâ, subcylindricâ, posticè quadratâ, laminis crassiusculis,*

laevibus, et radiâs posticè angulatâ, exfoliatâ; laterâ anticè brevissimâ; umbonibus ferè terminalibus. Laterâ posticè elongatâ, marginibus rectis eadè.

THE VERY BEAUTIFUL VENERUPIS. Shell elongated, subcylindrical, posteriorly quadrate, exfoliated with rather thick, smooth, outstanding posteriorly angular laminae; anterior side very short; umbones nearly terminal; posterior side elongated, margins rather straight.

DESHAYES, Proc. Zool. Soc.

Hab. Isl. Samar, Philippines.

Species 16. (Mus. Brit.)

VENERUPIS *CHINENSIS*. Ven. testâ *oblongo-subquadratâ, depressâ, subinæquivalvè, albâ, laevigatâ, laminis erectis crassiusculis posticè angulatâ, productioribus exfoliatâ; laterâ anticè brevissimâ; laterâ posticè subattenuatâ; margine dorsalâ declivè.*

THE CHINESE VENERUPIS. Shell oblong, subquadrate, depressed, rather irregular, white, smooth, exfoliated with erect, rather thick laminae, posteriorly angular and more produced; anterior side very short; posterior side rather attenuated; dorsal margin sloped.

DESHAYES, Proc. Zool. Soc.

Hab. Flo-Flo, Isl. Panay, Philippines.

Collected by the late Mr. Cumming on rocks at low water.

Species 17. (Mus. Sowerby.)

VENERUPIS *DILMENSIS*. Ven. testâ *oblongo-subquadratâ; ventricosâ, crassâ, radiatim costatâ, intus violacè.*

November, 1874.

concentricè crenulatim et striatâ, costis depressis, serratis, margine dorsali rectiusculo; margine terminali truncato; margine ventrali convexo, intâs crenulato.

THE VAN DIEMEN'S LAND VENERUPIS. Shell oblong-subquadrate, ventricose, thick, radiately ribbed, violet within, concentrically crenulated and striated, ribs depressed, serrated, dorsal margin rather straight; terminal margin truncated; ventral margin convex; crenulated within.

QUOY. Voy. Astr., pl. 81, figs. 25, 26.

Hab. Van Diemen's Land.

Very Tapes-like in form and remarkably solid.

Species 18. (Mus. Brit.)

VENERUPIS CUMINGII. *Ven. testâ oratâ, subcevalâ, purpureo nebulatâ, inaequali, subdepressâ, radiatim costatâ; concentricè laminis crenatis, laevatis exfoliatis; valvâ dextrâ valvâ sinistram superanti, margine foliatâ.*

CUMING'S VENERUPIS. Shell ovate, bluish, clouded with purple, inequivalve, subdepressed, radiately ribbed; concentrically exfoliated with crenated, fluted laminae; right valve overlapping the left, with leafy margin.

DESHAYES. Proc. Zool. Soc., 1853.

Hab. — ?

Described from the Cumingian Cabinet.

Species 19. (Mus. Brit.)

VENERUPIS OBLONGA. *Ven. testâ orato-oblongâ, pallidâ fulvâ, sulcis duplicatis radiatâ, concentricè laminatâ; latere antico brevi, lunulâ distinctâ; latere postico subquadrato, margine postico rectangulari.*

THE OBLONG VENERUPIS. Shell ovate-oblong, pale fulvous, rayed with double grooves; concentrically laminated; anterior side short, lunule distinct; posterior side subquadrate, posterior margin rectangular.

SOWTERY. Proc. Zool. Soc., 1834.

Hab. Pascomayo, Peru.

Species 20. (Mus. Brit.)

VENERUPIS SILIQUA. *Ven. testâ oblongâ, cylindricâ, fulvâ, concentricè laminatâ; laminis anticè tenuibus, posticè angulatis, valvuloribus; latere antico brevi; latere postico elongato, ad terminum truncato.*

THE FOD VENERUPIS. Shell oblong, cylindrical, fulvous, concentrically laminated; laminae anteriorly thin, posteriorly angular, stronger; anterior side short; posterior side elongated, truncated at the end.

DESHAYES. Proc. Zool. Soc., 1853.

Hab. New Zealand.

Species 21. (Mus. Brit.)

VENERUPIS MONSTROSA. *Ven. testâ oratâ, inaequali, compressâ, pallidâ, anticè medioque decussatim striatâ, posticè irregularitèr concentricè laminatâ; valvâ dextrâ laminis valdè exfoliatis et incrassatis, valvâ sinistram superanti.*

THE MONSTROUS VENERUPIS. Shell ovate, inequivalve, compressed, pale, anteriorly and in the middle decussately striated, posteriorly irregularly concentrically laminated; laminae of the right valve much exfoliated and thickened, overlapping the left valve.

CHEMNITZ (VEBUS). Conch. VII. figs. 445, 446.

Hab. Isl. Nicobar, Philippines.



27



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36

VENERUPIS.

PLATE IV.

Species 22. (Mus. Brit.)

VENERUPIS IRIS. *Ven. testâ pallidâ tuteâ, compressâ, oblongâ-subquadratâ; radiatim tenuiter subvati, concentricè laminatâ, laminae exteriâ, laqueatis posticè latioribus; latere antico brevi, subâs umbonae contracto; umbonibus decumbentibus; medio compresso, marginè ventrali subtruncato; latere postico oblongo, subâs pulato.*

THE IRIS VENERUPIS. Shell pale fawn, compressed, oblong-subquadrate, radiately finely grooved, concentrically laminated, laminae external, fluted, broader posteriorly; anterior side short, excavated under the umbones; umbones decumbent; middle compressed, ventral margin a little contracted; posterior side oblong, rather angular.

LINNEUS (DORR). Systema Naturæ.

Tellina coccolobus. Pennant, Brit. Zool.

Camus foliatus, Costa.

Hab. Great Britain.

Found in Limestone rocks on the more southern coasts of England, Wales, and Ireland.

Species 23. (Mus. Brit.)

VENERUPIS M. BOCHYLLA. *Ven. testâ oblongâ, radiatim striatâ, laminae tenuibus, cancellatis, probatis, laqueatis, posticè latioribus; concentricè, vati; latere antico declivi; latere postico oblongo, ad terminum subtruncato; marginè ventrali rectiusculo, marginè dorsali paulo arcuato, declivi.*

THE LARGE LEAF VENERUPIS. Shell oblong, radiately striated, concentrically ornamented with thin, cancellated, produced, fluted laminae, broader at the posterior side; anterior side sloped; posterior side elongated, rather rounded at the end; ventral margin rather straight, dorsal margin a little arched, sloped.

DESMAYES, Proc. Zool. Soc., 1853.

Hab. Philippines.

A more light and delicate shell than *Venerupis Iris*, with the leafy laminae fewer and more prominent.

Species 24. (Mus. Brit.)

VENERUPIS MULLA. *Ven. testâ oblongâ, rectangulari, latere radiatim striatâ, concentricè tenuiter laminatâ; latere antico brevi, declivi; latere postico oblongo, obliquè angulato; marginè dorsali recto; contracto ventrali latè truncato.*

THE SMALL VENERUPIS. Shell oblong, rectangular, finely radiately striated, concentrically finely laminated; anterior side short, sloped; posterior side oblong, obliquely angular; dorsal margin straight; terminal margin broadly truncated.

DESMAYES, Proc. Zool. Soc., 1853.

Hab. — ?

The habits of this interesting little shell is unknown.

Species 25. (Mus. Brit.)

VENERUPIS FIMBRATA. *Ven. testâ subovata, radiatim subdistanter subvati; concentricè laminatâ, laminae extantibus, laqueatis, posticè latioribus; latere antico brevi, subtruncato, umbonibus altis; latere postico subangulato; marginè dorsali rectiusculo.*

THE FRINGED VENERUPIS. Shell, subovate; radiately rather distantly grooved; concentrically laminated; laminae outstanding, fluted, broader posteriorly; anterior side short, rather rounded, umbones elevated; posterior side rather angular; dorsal margin nearly straight.

SOWERBY, Thesaurus Conchyliorum, *Venerupis*, No. 12, fig. 24.

Hab. — ?

A shell in the Cunningham collection, locality unknown.

VENERUPIS.—PLATE IV.

Species 26. (Fig. a, b, Mus. Sowerby.)

VENERUPIS REGOSA. *Ven. testâ oblongâ, rectâsculâ, crassâ, nonnunquam ad umbones roseo-purpureâ, internum intus posticè fusco-purpureo pictâ, medio anticâque discrepâ et angulatâ rugosâ, posticè rugis concentricis, crassiusculis liratis; latere postico latiusculo, latè truncato.*

THE RUGOSE VENERUPIS. Shell oblong, rather straight, thick, sometimes purplish-rose at the umbones, sometimes painted inside posteriorly with purple-brown, wrinkled in the middle in a broken and angular manner, posteriorly ridged with concentric, rather thick wrinkles; posterior side rather broad; widely truncated.

DESHAYES, Proc. Zool. Soc.

Hab. Swan River.

The form is similar to that of *Tapes perforans*, but the surface is wrinkled in small angles, excepting at the back, where there are regular ridges.

Species 27. (Mus. Hanley.)

VENERUPIS INTERSTRIATA. *Ven. testâ rhomboidâ, posticè pallidè et minutè lineis rubris reticulatâ; concentricè exarâ laminatâ, inter laminas minutissimè striatâ; latere antico angustiusculo, brevi, subtilis umbones excavato; latere postico latiori, obliquè angulato, margine dorsali recto; margine terminali latè truncato.*

THE INTERSTRIATED VENERUPIS. Shell rhomboidal, anteriorly reticulated with fine red lines, concentrically closely laminated, very finely striated between the laminae, anterior side rather narrow, short, excavated beneath the umbones; posterior side broader, obliquely angular, dorsal margin straight; terminal margin broadly truncated.

OWLEBY, Thesaurus Conchyliorum, Venerupis, No.

17, fig. 26.

Hab. — ?

Species 28. (Mus. Brit.)

VENERUPIS FAUPERCULA. *Ven. testâ parvâ, brevi, oblongo-subquadratâ, concentricè irregulariter rugatâ;*

rugis sublamînatis, subundatis; latere postico obliquè angulato, margine rectangulari.

THE FAUPER VENERUPIS. Shell small, short, oblong, rather square, concentrically irregularly wrinkled; wrinkles sublaminated, rather undulated; posterior side obliquely angular, with rectangular margin.

DESHAYES, Proc. Zool. Soc., 1853.

Hab. Mazatlan.

Species 29. (Mus. Brit.)

VENERUPIS FLANIGOSTA. *Ven. testâ subquadratâ, discrepâ concentricè laminis distantibus planulatis liratis; radiatim minutè striatâ; latere antico brevissimè; umbonibus subterminalibus; latere postico subquadrato, margine dorsali declivi; margine ventrali recto.*

THE FLAT-RIBBED VENERUPIS. Shell subquadrate, distinctly concentrically ridged with distant flattened laminae; radiately minutely striated; anterior side very short; umbones nearly terminal, posterior side rather square, with dorsal margin sloped; ventral margin straight.

DESHAYES, Proc. Zool. Soc., 1853.

Hab. — ?

More rectangular than *Venerupis obesa*.

Species 30. (Mus. Hanley.)

VENERUPIS INTERJECTA. *Ven. testâ oblongo-subquadratâ, posticè roseo angulatâ lineatâ, laminis concentricis acutis subdistantibus rugatâ, radiatim minutissimè striatâ; latere postico obliquè angulato, ad terminum expanso, latere dorsali recto, elevato, ad terminum cuneato.*

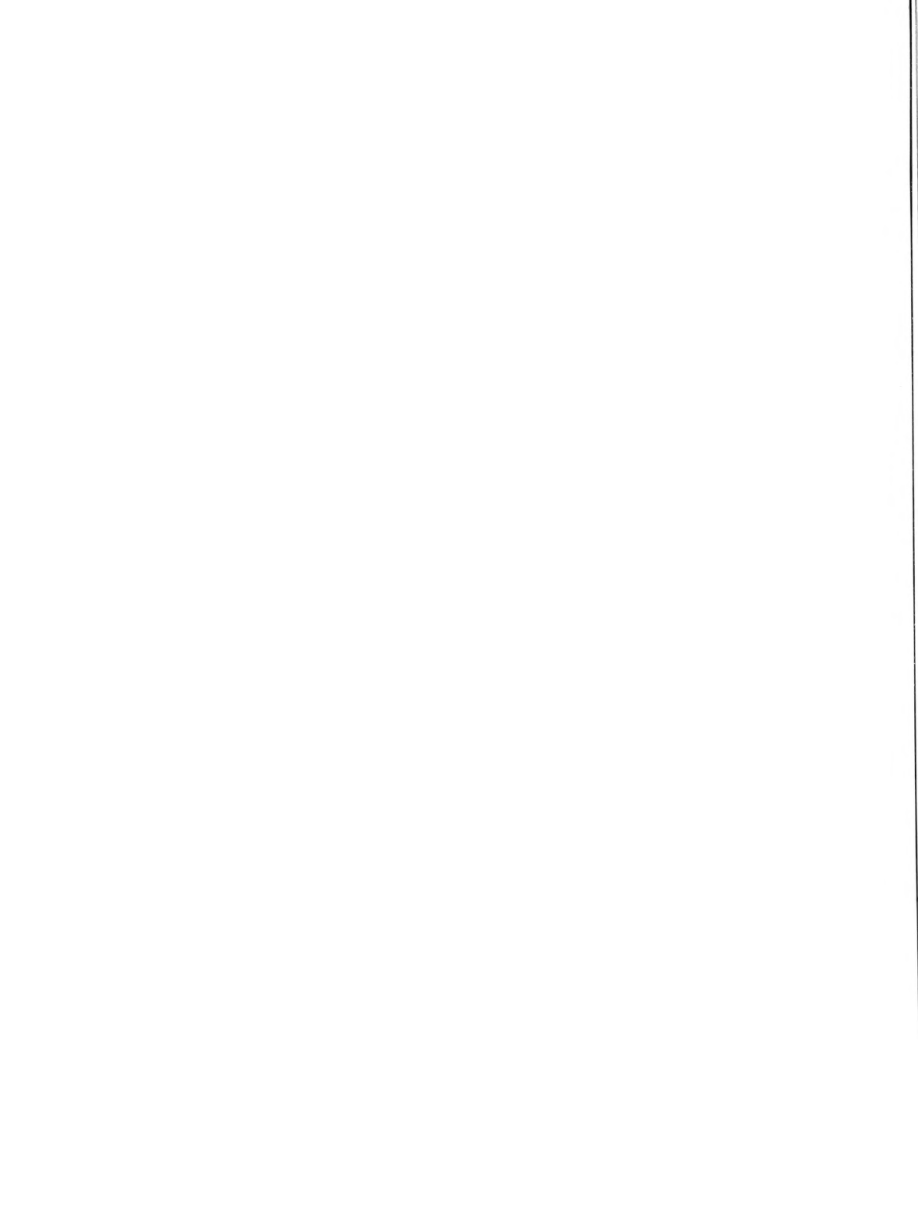
THE INTERJECTED VENERUPIS. Shell oblong-subquadrate, posteriorly lineated with rose, concentrically wrinkled with sharp, rather distant laminae, radiately very minutely striated; posterior side obliquely angular, expanded at the end; dorsal margin straight, elevated, cuneate at the end.

DESHAYES, Brit. Mus. Cat.

Hab. New Holland.

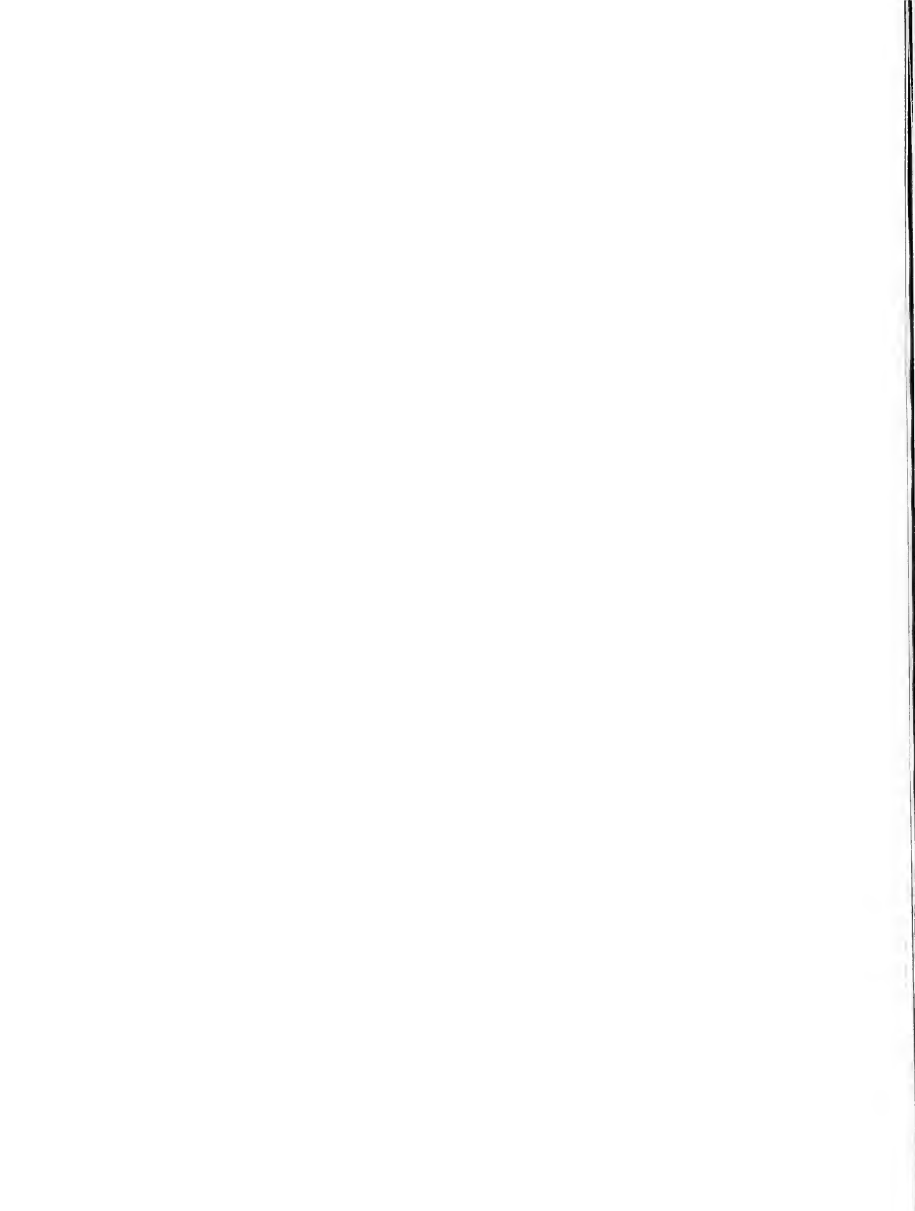
VENERUPIS.

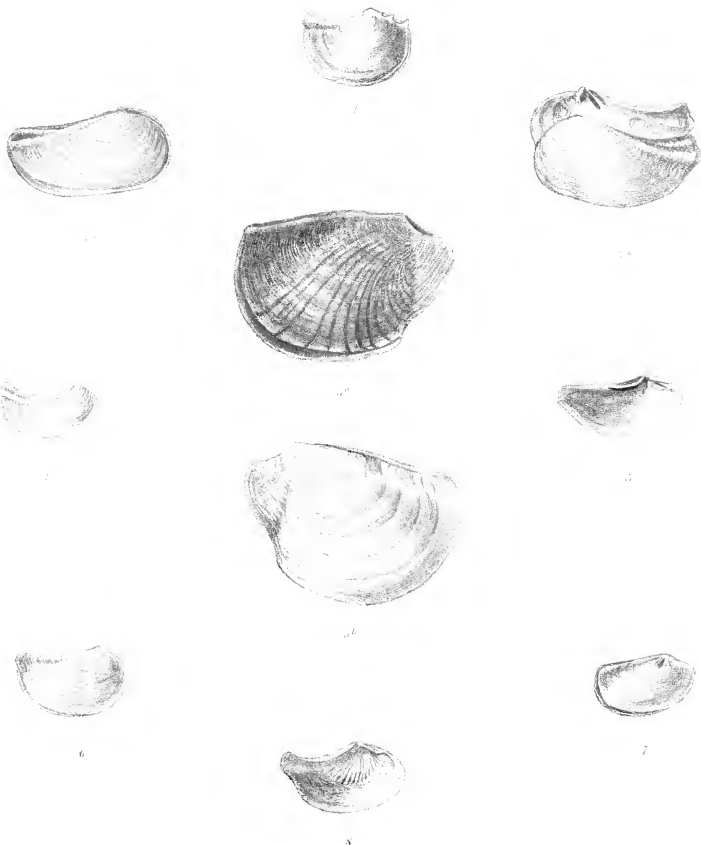
	Loc.	Species.		Plac.	Species.
<i>angulata, Deshayes</i>	II.	12	<i>interjecta, Deshayes</i>	IV.	30
<i>heterogata, Sowerby</i>	II.	7	<i>interstriata, Sowerby</i>	IV.	27
<i>Cat. acicula, Conrad</i>	II.	12	<i>trita, Lillanburg</i>	IV.	22
<i>cardioides, Lamarck</i>	I.	5	<i>macrophylla, Deshayes</i>	IV.	23
<i>Catimensis, Deshayes</i>	III.	16	<i>naraldis, Deshayes</i>	I.	4
<i>Corlieri, Deshayes</i>	I.	1	<i>nitida, Deshayes</i>	IV.	24
<i>corumbensis, Pennant</i>	IV.	22	<i>monstrosa, Chemnitz</i>	III.	21
<i>coriata, Lamarck</i>	I.	3	<i>obesa, Deshayes</i>	III.	13
<i>Cuminea, Deshayes</i>	III.	18	<i>oblonga, Sowerby</i>	III.	19
<i>cylindracea, Deshayes</i>	II.	12	<i>periporella, Deshayes</i>	IV.	28
<i>dorsellata, Deshayes</i>	II.	8	<i>planicosta, Deshayes</i>	IV.	29
<i>Domenensis, Quoy</i>	III.	17	<i>pulexirima, Deshayes</i>	III.	15
<i>digona, Deshayes</i>	II.	6	<i>rugosa, Deshayes</i>	IV.	26
<i>exocina, Hanley</i>	II.	11	<i>siliqua, Deshayes</i>	III.	20
<i>fimbriata, Sowerby</i>	IV.	25	<i>sabulobasa, Sowerby</i>	II.	12
<i>foliacea, Deshayes</i>	II.	10	<i>texta, Deshayes</i>	II.	9
<i>platas, Costa</i>	IV.	22	<i>tumida, Sowerby</i>	III.	14
<i>insignis, Deshayes</i>	I.	2			



MONOGRAPH
OF THE GENUS
P A N D O R A.

Thousands of things do These employ
In ruling all
This spacious globe." *Troil.*





PANDORA.

PLATE I.

Genus PANDORA. *Sowerby.*

Testa fortiteralis, inequilateralis, postice producta, costata, tenuis, compressa, alba, intus margaritacea. Impressions musculares duae, rotundae. Valva dextra complanata, unilobata, cartilagine inter costas lunatis radiatis forata, margine posteo-dorsali reflexo. Valva sinistra plusminusve convexa, ad marginem ventralem plerumque calceam dentium superans.

Shell inequivalve, inequilateral, posteriorly produced, beaked, thin, compressed, white, pearly within. Muscular impressions two, rounded. Right valve flat, single-toothed, cartilage pitted between two radiating laminated ribs, posterior dorsal margin bent backwards. Left valve more or less convex, generally overlapping the right valve at the ventral margin.

The sub-genus *Kennerlia* is founded by Mr. Carpenter upon the species *Pandora glauca* and another or two, which are said to have an ossicle. This ossicle seems to me to be only a thickening of the sides of the ligament pit; in which case, the generic description of Pandora by Adams as having "no free ossicle" would be correct of all the species including the above mentioned. It is quite possible that an examination of more specimens might modify my view of this matter.

The Pandora burrow in sand and mud at considerable, but varying depths. Britain has two species; other species are found northwards at Spitzbergen, centrally at Panama, and southwards at New Zealand. The number of species has not very largely increased since the publication of the late Mr. G. B. Sowerby's monograph in the Species Conchyliorum; that is to say, it has not done so in proportion to many other genera during that period.

Species 1. (Mus. Brit.)

PANDORA CRISTATA. *Pan. testâ altâ, brevi, dolabriformi compressâ; margine ventrali convexissimâ; latere antico brevi, margine dorsali elevato; lamina cuneatis cristato; latere postico ad marginem dorsalem leviter arenato, in rostrum productum elevatum angustum terminanti, costâ dorsali angustâ, tumidi.*

THE CRESTED PANDORA. Shell elevated, short, hatchet-shaped, compressed; ventral margin very convex;

anterior side short, dorsal margin elevated, crested with cuneate lamina; posterior side slightly arched at the dorsal margin; terminating in a produced, raised, narrow beak; dorsal rib narrow, tumid.

CARPENTER —? Mus. Brit. MS.

Hab. —?

Distinguished by a jagged crest on the antero-dorsal margin.

Species 2. (Fig. a, b, Mus. Sowerby.)

PANDORA INEQUIVALVIS. *Pan. testâ oblongâ, intus costisque medio et versis umbones flexuâ; latere antico brevi, subrotundo, costis mediâ subflexuosis; latere postico producto, margine dorsali paulo excavatum depresso; rostro obtuso, truncato; costâ dorsali duplicatâ, depressâ; valvâ sinistra profundi, flexuâ, ad marginem ventralem calceam dentium conspicuè superantem.*

THE INEQUIVALVE PANDORA. Shell oblong, yellow inside and outside in the middle and towards the umbones; anterior side short, rather rounded, rather flexuous towards the middle; posterior side produced, dorsal margin a little depressed with a curve; beak obtuse, truncated; dorsal rib duplicate, depressed; left valve deep, flexuous, conspicuously overlapping the right valve at the ventral margin.

LINNEUS (Tellina). Syst. Nat.

Pandora costata, Lamarek.

Hab. Great Britain.

Species 3. (Fig. a, b, Mus. Brit.)

PANDORA WARDIANA. *Pan. testâ altâ, semiorbiculari, subrugosâ, pallidissime subpurpureâ; latere antico brevi, angusto, ad marginem ventralem sinu flexuoso emarginato; latere postico acuminato expanso, margine dorsali flexuosim declivi; valvâ dextrâ complanatâ, sulcis incisâ rubris, linearibus, ducurcivum radiatâ; valvâ sinistra calcè convexâ, anticè sulcâ flexuosâ, leviter depressâ radiatâ.*

WARD'S PANDORA. Shell elevated, semiorbicular, rather rough, very pale purplish; anterior side short, narrow, emarginated at the ventral margin with a flexuous sinus; posterior side acuminated, expanded, with dorsal margin flexuously sloped; right valve flattened, diversely rayed with incise,

rod, linear grooves; left valve very convex, rayed anteriorly with a flexuous, lightly depressed groove.

CARPENTER, Proc. Zool. Soc. 1850.

Hab. California.

In our common British species, the deep valve gives very slight indications of a sort of flexuous depression like that which is fully developed in the present species.

Species 4. (Mus. Brit.)

PANDORA ELONGATA. *Pan. testâ tenuissimâ, compressâ, calli arenatâ; latere antico brevissimo, angusto, obliquè elevato; latere postico lato, margine ventrali c arcuissimo; margine dorsali, crescentiformi; rostro angusto, producto; costâ dorsali tumidâ; valvâ sinistrâ planiusculâ.*

THE ELONGATED PANDORA. Shell very thin, compressed, much arched; anterior side very short, narrow, obliquely elevated; posterior side broad, ventral margin very convex; dorsal margin crescent-shaped; beak narrow, produced; dorsal rib tumid; left valve rather flat.

CARPENTER —? MS. Mus. Brit.

Hab. —?

The peculiarity of this shell is the oblique narrowing of the anterior side and deepening of the ventral margin on the posterior.

Species 5. (Mus. Brit.)

PANDORA OBLONGA. *Pan. testâ tenui, attenuatâ, rectiusculâ, latere antico angustiusculo; latere postico elongato, versis rostrum attenuatâ; rostro truncato; valvâ sinistrâ moderatè convexâ; dente in calvâ plicatâ ligamentoque minimis.*

THE OBLONG PANDORA. Shell thin, attenuated, rather straight, anterior side rather narrow; posterior side elongated, attenuated towards the beak; beak truncated; left valve moderately convex; tooth in lower valve and ligament very small.

SOVERBY, Species Conchylorum, Pt. I. Pandora Sp. f. 10.

Hab. River Gumbroon.

This species differs from *Pandora inaequalis* in its length and narrowness. The tooth and ligament are also very small.

Species 6. (Mus. Brit.)

PANDORA TRILINATA. *Pan. testâ compressâ, altiusculâ*

distanter rugatâ, crassiusculâ; margine dorsali paulò depresso-arcuato, rostro obtusissimo, truncato; costâ dorsali acuatâ, subnodosâ; valvâ dextrâ ad marginem ventralium rotam sinistram superantè; valvâ sinistrâ planiusculâ.

THE TRILINEAR PANDORA. Shell compressed, rather elevated, distantly wrinkled, rather thick; dorsal margin a little depressed in a curve, beak very obtuse, truncated; dorsal rib sharp, rather nodose; right valve overlapping left valve at the ventral margin; left valve rather flat.

SAY, Adams, Proc. Zool.

Hab. Ceylon.

More solid and pearly than either of the British species.

Species 7. (Mus. Soverby.)

PANDORA OBTUSA. *Pan. testâ oratâ, rectiusculâ, tenui, latere antico brevi, angulato, superè emucato, latere postico expanso, truncato, margine dorsali vix depresso; costâ dorsali inconspicuâ; valvâ sinistrâ convexâ, versus umbones rugatâ.*

THE OBTUSE PANDORA. Shell ovate, rather straight, thin, anterior side short, narrow, cuneate above; posterior side expanded, truncated, dorsal margin very little depressed; dorsal rib inconspicuous; left valve convex, wrinkled towards the umbos.

LEACH, MS. Brit. Mus.

Mytilus pinnâ, Pennant.

Amatium truncatâ, Turton.

Hab. South-west coast of England.

Species 8. (Mus. Brit.)

PANDORA ACUTATA. *Pan. testâ altiusculâ, dolabriformi, latere antico subproducto, margine rotando; latere postico obliquè arcuato; rostro producto, levato; valvâ sinistrâ intus medio et versis umbones costellis margaritinis radiatâ.*

THE ABUTTED PANDORA. Shell rather elevated, hatchet-shaped, anterior side rather produced; margin rounded; posterior side elegantly arched, beak produced, elevated; left valve rayed inside, in the middle and near the umbos with pearly riblets.

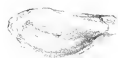
SOVERBY, Species Conchylorum, Med. Pl. f. 27, 28.

Hab. —?

There is a peculiar radiation of pearly striae in the interior of this shell, which is rather distinctly beaked and gracefully curved.



9



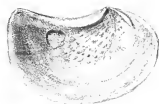
10b



10a



11a



15



12



11b



14b



14a



13

PANDORA.

PLATE II.

Species 9. (Mus. Brit.)

PANDORA KAMATA. *Pan. testâ semitrandâ, opacâ; margine ventrali convexo; latere antico brevi, margine dorsali subâns umbones excavato, ad terminum cuneato; latere postico versus rostrum subattenuato; rostro brevi, truncato; valvâ dextrâ planulatâ, radiatim sulcatâ, sulcis rubris, linearibus; valvâ sinistrâ convexâ; costâ dorsali validâ.*

THE BAYTED PANDORA. Shell half-round, opaque; ventral margin convex; anterior side short, dorsal margin excavated beneath the umbones, cuneated at the end; posterior side a little attenuated towards the beak; beak short, truncated; right valve flat radiately grooved, grooves red, linear; left valve convex, dorsal rim strong.

SOWERBY. Proc. Zool. Soc., 1835.

Hab. — ?

Species 10. (Fig. a, b, Mus. Brit.)

PANDORA FILOSA. *Pan. testâ semiovatâ, opacâ, margine ventrali medio convexo, utrinquâ attenuato, acuminato; margine dorsali recto; latere antico ad marginem ventralium sinuosim contracto; latere postico anti rostrum attenuato, contracto; rostro producto, ad terminum truncato; valvâ sinistrâ moderatè convexâ.*

THE THREMBID PANDORA. Shell semiovalate, opaque, ventral margin convex in the middle, attenuated and acuminate at each end; dorsal margin straight; anterior side sinuously contracted at the ventral margin; posterior side attenuated and contracted in front of the beak; beak produced, truncated at the end; left valve moderately convex.

CARPLENTLE. Proc. Zool. Soc.

Hab. Puget's Sound.

Species 11. (Fig. a, b, Mus. Brit.)

PANDORA CUMINGII. *Pan. testâ compressâ, obliquâ, arcuatâ; latere antico angusto, elevato; latere postico lato, producto, rostrato, margine dorsali profundè arcuato, ad terminum elevato, margine ventrali expanso, anti rostrum contracto.*

CUMING'S PANDORA. Shell compressed, oblique, arched; anterior side narrow, raised; posterior side produced, beaked, dorsal margin deeply arched, raised at the end, ventral margin expanded, contracted in front of the beak.

HANLEY. Proc. Zool. Soc., 1861.

Hab. Philippines.

An extraordinarily formed shell belonging to the same group as *P. Ceylanica*, &c.

Species 12. (Mus. Brit.)

PANDORA BREVIFRONS. *Pan. testâ tenuissimâ, elongatâ, rectâ, angustâ; latere antico brevi, subacuminato, margine dorsali elevato; latere postico producto, leviter rostrato, margine dorsali vic arcuato; valvâ sinistrâ convexâ, valvâ dextrâ ad marginem ventralium superanti.*

THE SHORT-FRONTED PANDORA. Shell very thin, elongated, rather straight, narrow; anterior side short, rather acuminate, with dorsal margin raised; posterior side produced, slightly beaked, dorsal margin very little arched; left valve convex, overlapping the right valve at the ventral margin.

SOWERBY. Proc. Zool. Soc., 1835.

Hab. — ?

Longer, straighter, and thinner than *P. oblonga*.

PANDORA.—PLATE II.

Species 13. (Mus. Brit.)

PANDORA PUNCTATA. *Pan. testâ expansâ, latâ, arcuatâ; latere antico brevi, margine suprà medium subcuneato, latâs impresso-punctatâ dente unico, a margine distanti, radiato; latere postico producto, expanso subrostrato, ad terminum elevato, acuminato; margine dorsali arcuatâ depresso; valvâ sinistrâ ad marginem ventralem expanso.*

THE PUNCTURED PANDORA. Shell expanded, broad, arched; anterior side short, margin with a slight corner above the middle, inside with impressed-punctures rayed with a single tooth distant from the margin; posterior side produced, expanded, slightly beaked, raised at the end, acuminated; dorsal margin depressed in a curve; left valve expanded at the ventral margin.

CONRAD. Proc. Zool. Soc., 1855.

Hab. — ?

Species 14. (Fig. a, b, Mus. Brit.)

PANDORA GLACIALIS. *Pan. testâ latâ, breviusculâ, ventricosâ, crassisâculâ, concentricè rugatâ; latere antico vix cuneato radiatum sulco inconspicuo impresso, ad marginem sinuato; latere postico latiori, brevissimè rostrato, obtuso, propè marginem costis duabus subnoduliferis radiato, ad marginem ventralem coarcto; valvâ sinistrâ profundâ, edentulâ; valvâ dextrâ unidentatâ; cartilagine in fossam*

instructâ; forâ ad laterâ laminâ calcareâ incrassatâ.

THE GLACIAL PANDORA. Shell broad, rather short, ventricose, rather thick, wrinkled concentrically; anterior side with a very slight corner, impressed with a slightly radiating groove, sinuated at the margin; posterior side broader, very shortly beaked, obtuse, rayed near the margin with two rather nodulous ribs, convex at the ventral margin; left valve deep, without teeth; right valve with one tooth; cartilage inserted in a pit; thickened at the sides with a calcareous layer.

LEACH. B. M.

Hab. Spitzbergen.

I can scarcely regard this slight thickening at the sides of the cartilage pit and cartilage as a separate ossicle.

Species 15. (Mus. Brit.)

PANDORA BRAZILIENSIS. *Pan. testâ brevi, latâ, obtusâ; latere antico brevissimo; latere postico latè truncato; valvâ sinistrâ ventricosâ.*

THE BRAZILIAN PANDORA. Shell short, broad, obtuse; anterior side very short; posterior side broadly truncated; left valve ventricose.

GOULD — ? MS. Brit. Mus.

Hab. Brazil.

I am unacquainted with the upper valve of this shell, which may possibly prove to have been described from a defective specimen.



17



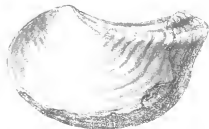
18



19



20



20 a



21



21 b



22



23



24



25

PANDORA.

PLATE III.

Species 16. (Fig. *a, b*, Mus. Sowerby.)

PANDORA FLEXUOSA. *Pan. testâ parvâ, beccûsculâ, tortuosâ; latere antico subacuminatâ; latere postico attenuatâ, rostratâ, margine dorsali declivi, arcuatâ, ad terminum levato, margine ventrali truncatâ; valvâ sinistrâ profundâ, flexuosâ; antè rostrum contractâ; costis duabus rostralibus validis.*

THE FLEXUOUS PANDORA. Shell small, rather short, tortuous; anterior side slightly acuminated; posterior side attenuated, beaked, dorsal margin sloped, arched, raised at the end, terminal margin truncated; left valve deep, flexuous, contracted in front of the beak; two strong rostral ribs.

SOWERBY. Genera of Shells, No. 2.

Hab. Arabian Gulf.

This beautiful little species is seldom met with.

Species 17. (Mus. Sowerby.)

PANDORA DELICATULA. *Pan. testâ parvâ, tenuissimâ, depressâ, medio concentricè leviter rugatâ, breviusculâ; anticè angustâ, posticè ad marginem ventralen expansâ; antè rostrum leviter contractâ; rostro lato, depresso, latè truncatâ, margine dorsali recto.*

THE DELICATE PANDORA. Shell small, very thin, depressed, slightly concentrically wrinkled in the middle, rather short; anteriorly narrow, posteriorly expanded at the ventral margin; a little contracted in front of the beak; beak broad, depressed, broadly truncated, dorsal margin straight.

A. ADAMS. Proc. Zool. Soc.

Hab. Japan.

The specimens from which the figure is taken are young, and I have seen no others.

Species 18. (Mus. —? copied.)

PANDORA NASUTA. *Pan. testâ subovata, arcuatâ, medio subexpansâ; latere antico subcuneato, margine*

dorsali subulato, declivi; latere postico versus terminum attenuatâ, conspicuè rostratâ; margine dorsali arcuatâ, margine ventrali antè rostrum contracto, medio convexo.

THE NASUTE PANDORA. Shell subovate, arched, slightly expanded in the middle; anterior side a little embeate, with dorsal margin slightly alate, sloped; posterior side attenuated towards the end, conspicuously beaked; dorsal margin arched, ventral margin a little contracted in front of the beak, convex in the middle.

SOWERBY. Species Conchyliorum, figs. 18, 19.

Hab. —?

The shell is described in the above work as one of extreme rarity, and as the specimen in the British Museum to which the name is attached does not well agree with the description and original figure, I have thought it best to copy the latter.

Species 19. (Fig. *a, b*, Mus. Brit.)

PANDORA CEYLONICA. *Pan. testâ altâ, compressâ, delatibrijormi, arcuatâ, solidiusculâ, subaquilaterali, concentricè undulatâ; intus lamina cardinalibus, uni fornicatâ, radiatâ; latere antico acclivi, margine dorsali subulato; latere postico ad marginem ventralen productâ; antè rostrum contracto, margine dorsali profundissimè arcuatâ; rostro angustâ, productâ, costâ duplicatâ rostrali validâ, angustâ; valvis subaquilaterè plumulatis.*

THE CEYLON PANDORA. Shell elevated, compressed, hatchet-shaped, arched, rather solid, nearly equilateral, concentrically undulated, rayed within with cardinal layers, one vaulted; anterior side sloped upwards, dorsal margin slightly alate; posterior side produced at the ventral margin; contracted in front of the beak, dorsal margin very deeply arched; beak narrow, produced, double rostral rib strong, narrow; valves almost equally flat.

SOWERBY. Proc. Zool. Soc., 1835.

Hab. Ceylon.

November, 1874.

PANDORA.—PLATE III.

Species 20. (Fig. a, b, Mus. Brit.)

PANDORA CLAVICULATA. *Pan. testâ altâ, dohriformi, arcuatâ, solidiâsculâ, concentricè validè undulatâ; latere antico levato, margine dorsali subulato; latere postico ad marginem ventralem rotundatim expanso, versùs terminum sursum aequali; margine dorsali arcuato, rostro terminali aequali; costis rostratibus crassis, ad terminum elevatis; valvâ sinistrâ posticè moderatè convexâ, flexuosâ.*

THE KEY-SHAPED PANDORA. Shell elevated, hatchet-shaped, rather solid, concentrically strongly undulated; anterior side raised, dorsal margin slightly alate; posterior side roundly expanded at the ventral margin; sloped up towards the end; dorsal margin arched, terminal rostrum sloped upwards; rostral ribs thick, raised at the end; left valve posteriorly moderately convex, flexuous.

CARPENTER. Proc. Zool. Soc., 1855.

Hab. — ?

Resembling *Pandora Ceylanica* in form, but the under valve is more convex, and the curve of the dorsal margin less strong.

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

PANDORA DEPRESSA. *Pan. testâ altâ, solidâ, viridè margaritucâ, compressâ, breviusculâ; latere antico brevissimo; margine dorsali declivi; latere postico obtuso, viz rostrato; margine dorsali leviter arcuato; valvâ sinistrâ parvâ, convexâ.*

THE DEPRESSED PANDORA. Shell elevated, solid, brightly pearly, compressed, rather short; anterior side very short; dorsal margin sloped; posterior side obtuse, scarcely beaked; dorsal margin slightly curved; left valve a little convex.

SOWERBY. Species Conchyliorum, Figs. 11, 12.

Pandora tabaca, Gronovius?

Species 22. (Mus. Brit.)

PANDORA DISCORDS. *Pan. testâ brevî, altâ, compressâ; latere antico cuneato, subproducto; latere postico breviusculo; valvâ dextrâ acutè rostratâ, costis validis duabus propè marginem radiatâ; valvâ sinistrâ multo ad marginem ventralem, valvâ dextram superatâ.*

THE DISCORDANT PANDORA. Shell short, elevated, compressed; anterior side cuneate, a little produced posterior side rather short; right valve sharply beaked, rayed near the margin with two strong ribs; left valve much overlapping the right valve at the ventral margin.

SOWERBY. Proc. Zool. Soc., 1835.

Hab. — ?

The ventral extension of the deeper valve, from which the name is probably derived, may possibly be a mere imperfection in the specimens described from.

Species 23. (Mus. Brit.)

PANDORA UNGUICULUS. *Pan. testâ parvâ, arcuatâ, ventricosâ, latere antico subacuminatâ; latere postico subattenuatâ, rostro productâ, acuminatâ; costis marginalibus duabus, angustis, approximatis; margine dorsali leviter arcuato; valvâ sinistrâ convexâ, subflexuosâ.*

THE TALON PANDORA. Shell small, curved, ventricose, anterior side rather acuminated; posterior side rather attenuated, beak produced, acuminated; marginal ribs two, narrow, approximate; dorsal margin slightly arched; left valve convex, rather flexuous.

SOWERBY. Species Conchyliorum, figs. 16, 17.

Hab. — ?

The posterior side is attenuated gradually towards the beak in this species; whereas in *Pandora flexuosa* it is suddenly contracted.

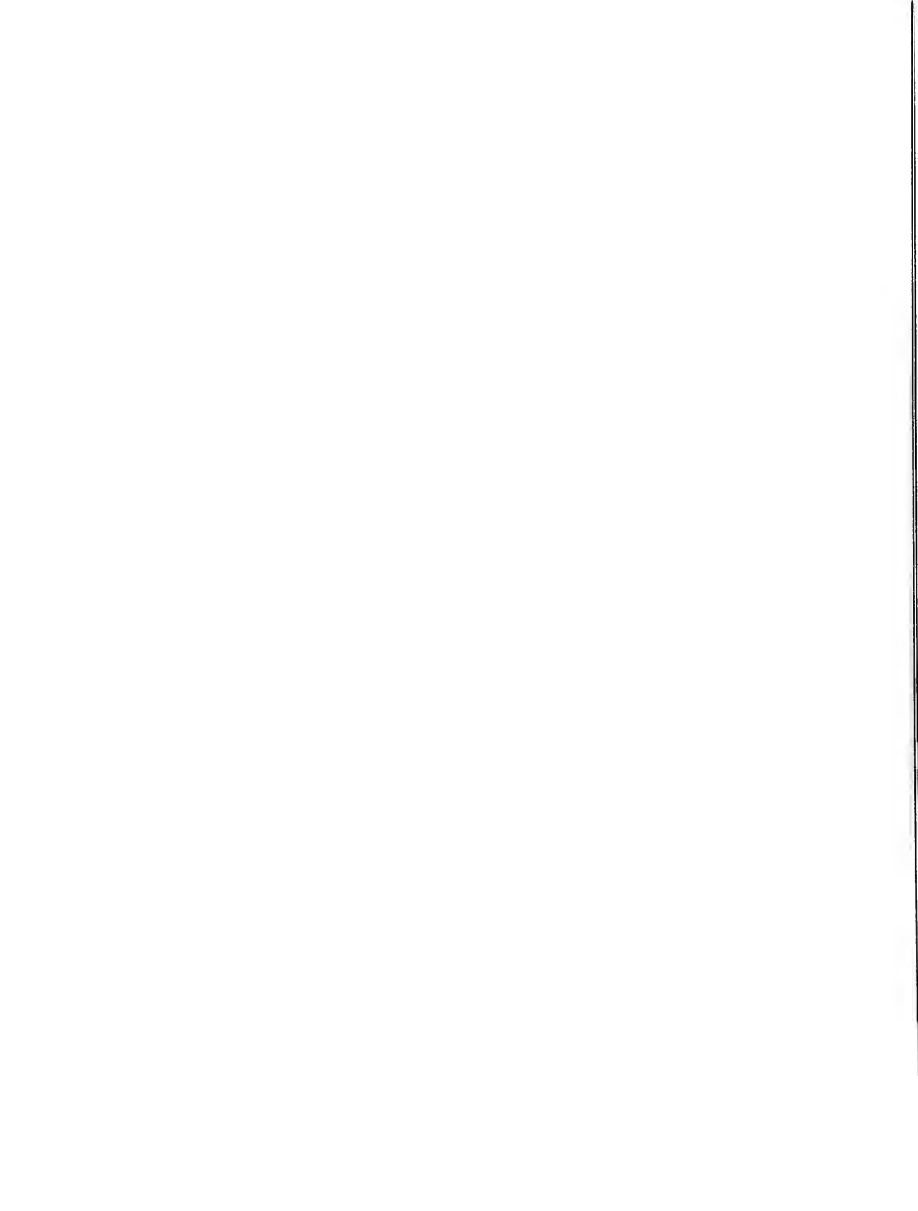
PANDORA.

	FIG.	SPICES.		FIGURE.
<i>aperta</i> , <i>Sowerby</i>	I.	8	<i>laetialis</i> , <i>Leach</i>	II.
<i>brachialis</i> , <i>Giesb.</i>	II.	15	<i>inaspivalvis</i> , <i>Linnaeus</i>	I.
<i>cyathata</i> , <i>Sowerby</i>	II.	12	<i>nasuta</i> , <i>Sowerby</i>	III.
<i>cyathata</i> , <i>Sowerby</i>	III.	19	<i>oblonga</i> , <i>Sowerby</i>	I.
<i>claviflora</i> , <i>Carpenter</i>	III.	20	<i>obtusa</i> , <i>Leach</i>	I.
<i>eristata</i> , <i>Carpenter</i>	I.	1	<i>pinna</i> , <i>Pennant</i>	I.
<i>Cuminea</i> , <i>Hawley</i>	II.	11	<i>punctata</i> , <i>Conrad</i>	II.
<i>delicatula</i> , <i>A. Adams</i>	III.	17	<i>radiata</i> , <i>Sowerby</i>	II.
<i>depressa</i> , <i>Sowerby</i>	III.	21	<i>rostrata</i> , <i>Lamarek</i>	I.
<i>discors</i> , <i>Sowerby</i>	III.	22	<i>trilineata</i> , <i>Say</i>	I.
<i>elongata</i> , <i>Carpenter</i>	I.	4	<i>truncata</i> , <i>Turton</i>	I.
<i>filosa</i> , <i>Carpenter</i>	II.	10	<i>unguiculus</i> , <i>Sowerby</i>	III.
<i>flexuosa</i> , <i>Sowerby</i>	III.	16	<i>Wardiana</i> , <i>Carpenter</i>	I.



MONOGRAPH
OF THE GENUS
TRICHOTROPIS.

“Thus the men
Whom Nature’s works can charm, with God himself
Hold converse.”—*Illegible*.





14



15



16



2



3



1



13

TRICHOTROPIS.

PLATE I.

Genus TRICHOTROPIS, *Bredner and Sowerby.*

Testa spiralis, carinata, umbilicata, epidermide corneo induta; spira angustulis scalatis; apertura angulata, anticè armata et emarginata. Operculum corneum, nonspirale, nucleum terminat.

Shell spiral, keeled, umbilicated, covered with a horny epidermis; whorls of the spire in steps; aperture large, acuminate anteriorly, with a canal. Operculum horny, not spiral, with terminal nucleus.

Three or four species out of the thirteen are from Japan, &c., the others are from the northern latitudes of Europe and America. The species of *Admete* are distinguished from those of *Trichotropis*, not only by the lighter texture, and usually more ovate form of the shell, but by the absence of an umbilicus.

Species 1. (Fig. a, b, c, Brit. Mus.)

TRICHOTROPIS BOREALIS. *Tri. testâ subfusiformi, latè umbilicata, quinque-carinata, quæcunquè crasso, flavoâ foveâ, ad carinam hincata induta, latius costâ; spirâ levatâ; angustulis paucis, angulatis; apertura latâ, columellâ obliquâ, labio externo tenui, angulato.*

THE BOREAL TRICHOTROPIS. Shell subfusiform, broadly umbilicated, five-keeled, covered with a thick yellow-brown epidermis, with hair at the keels, pink within; spire elevated; whorls few, angular; aperture broad, columella oblique, outer lip thin, angular.

BREDNER AND SOWERBY, Zool. Journ. iv. p. 375.

Trichotropis Atlantica, Beck.

Trichotropis umbilicata, Macgillivray.

Trichotropis acuminata, Jeff. y. s. (Fig. 1, a.)

Hab. Behring Straits, Greenland, North Britain.

The synonyms above quoted appear to be only conditions and states of the same species. The second is represented by our figure 1 a. The third is figured in Thorpe's British Marine Conchology as having all the appearance of an unformed shell.

Species 2. (Mus. Sowerby.)

TRICHOTROPIS BIFRANGINATA. *Tri. testâ angulato-subglobosâ; angustulis angulatis, paucis, ultimo maximo, medio carinâ dubius ciliatis, distantibus cinctis; umbilico lato, margine ciliato; apertura intricatâ, subquadratâ, columellâ latâ, infra planatâ, expansâ. Epidermidâ flavâ, fusâ.*

THE TWO-KEELED TRICHOTROPIS. Shell angular-subglobose; whorls angular, few; last very large, encircled with two ciliated, distant keels; umbilicus broad, with ciliated margin; aperture very large, rather square. Epidermis yellowish-brown.

BREDNER AND SOWERBY, Zool. Journ., iv.

Hab. Japan.

Species 3. (Mus. Brit.)

TRICHOTROPIS CANCELATA. *Tri. testâ pyramidatâ; spirâ levatâ; angustulis subrotundis, ultimo centricis, costellis seta crenulatis, ciliatis cincto; umbilico parvo; columellâ tenui, arcuatâ; apertura rotundâ, anticè acutâ.*

THE CANCELLATED TRICHOTROPIS. Shell pyramidal; spire elevated; whorls rather rounded, last whorl ventricose, encircled with eight crenulated, ciliated ribs; umbilicus small; columella thin, arched; aperture rounded, sharp in front.

HINDS, Proc. Zool. Soc., 1843.

Hab. Sitka, North America.

TRICHOTROPIS.—PLATE I.

Species 4. (Mus. Brit.)

TRICHOTROPIS KUZERI. *Tri. testá subfusiformi, costis distinctis, substantibus cincti, epidermide stramineo-subviridi indutá; spirá conicá, anfractibus paucis; umbilico magno; aperturá magná, subovatá, antice posticæque acuminatá.*

KUZER'S TRICHOTROPIS. Shell subfusiform, encircled with distinct rather distant ribs, covered with a greenish straw-coloured epidermis; spire conical, with few whorls; umbilicus large; aperture large, subovate, anteriorly and posteriorly acuminated.

PHILIPPI. Menke Zeitschrift, 1848.

Trichotropis Dolium. Petri.

Trichotropis ciliata. Kuzer.

Hab. Spitzbergen.

Species 5. (Mus. Brit.)

TRICHOTROPIS INSIGNIS. *Tri. testá crassá, subglobosá, epidermide pallidè fuscá indutá, costellis undulatim crenulatis cincti; aperturá subquadrátá, margine crenulato; umbilico parvo.*

THE WONDERFUL TRICHOTROPIS. Shell thick, rather globose, covered with a pale brown epidermis, encircled with undulating crenulated ribs; aperture rather square, with crenulated margin; umbilicus small.

MIDDENDORF. Malac. Ross., p. 107, t. 10, f. 7, 8, 9.

Hab. Behring's Straits.

This species is extremely different from all the rest.



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TRICHOTROPIS.

PLATE II.

Species 6. (Mus. Brit.)

THE BROWNISH FLAVIDULA. *Tri. testis pyramidalis, angustata, testis flavida; spiræ elevatæ, acuminatæ, angulatis; costis angulatis, costis supra suturam duabus, distinctis, ultima quadriceolata, inter costas concentricata; umbilico angusto; apertura parva, subtriangul.*

THE YELLOWISH TRICHOTROPIS. Shell pyramidal, narrow, thin, yellowish; spiræ elevated, acuminated, whorls angular, encircled with two ribs above the suture; the last four ribbed, cancellated between the ribs; umbilicus narrow; aperture small, subtriangular.

HAB. Voyage of the *Sulphur*.

ADAMS.

Hab. Sitka, North America.

Species 7. (Fig. a, b, Mus. Brit.)

THE BROWNISH CERO-HELIX. *Tri. testis subpyramidalis, rufescenti, sulcis concentricis et costis moniliformibus spiræbus cancellatis; spiræ elevatæ; apertura subrotunda; columella subtruncatâ, retrarsi; labio externo antice sinuatum producto.*

THE SOMEWHAT TRICHOTROPIS. Shell somewhat pyramidal, rather reddish, cancellated with concentric grooves and beaded spiral ribs; spiræ elevated; aperture rather rounded; columella rather truncate, turned backwards; outer lip sinuously produced in front.

A. ADAMS, Proc. Zool. Soc.

Hab. Japan.

The beauty of this species consists in its cancellated and beaded sculpture.

Species 8. (Mus. Brit.)

TRICHOTROPIS UNICAMINATA. *Tri. testis lævigatâ, orato-*

subglobosâ, epidermide tenui, flavida inlata, spiræ elevatæ; angulatis angulatis, ad angulum superius unicarminatis; umbilico lato; apertura obliquè subquadrata, ad terminum anticum obliquè acuminata; lobis externo ad medium arcuata, supra inferturâ contracto.

THE ONE-KEELED TRICHOTROPIS. Shell smooth, oval-subdiskiform, covered with a thin, yellowish epidermis; spiræ elevated; whorls angular, with a single keel at the angle; umbilicus broad; aperture obliquely acuminated; outer lip arched at the middle, contracted above and below.

BRODERIP and SOWLELY. Zoological Journal, iv. p. 376.

Hab. Japan.

Species 9. (Fig. a, b, Mus. Brit.)

TRICHOTROPIS QUADRICAMINATA. *Tri. testis pyramidalis, acuminatâ, stramineâ, epidermide tenui, pallidè fuscâ inlata; spiræ elevatæ, angulatis angulatis, supra suturam bicarminatis; ultima ventricosa, medio bicarminata; umbilico parvo; apertura subquadrata, antice acuminatâ; columella tortuâ.*

THE SQUARE-KEELED TRICHOTROPIS. Shell pyramidal, acuminated, straw-coloured, covered with a thin, pale brown epidermis; spiræ elevated, whorls angular with two keels above the suture; the last ventricose, two-keeled in the middle; umbilicus small; aperture rather square, acuminated anteriorly; columella tortuous.

A. ADAMS, MS.

Hab. Japan.

The whorls have straight sides between the two keels.

August, 1874.

Species 10. (Mus. Brit.)

TRICHOTROPIS CLATHEATA. *Tri. testâ fusiformi, epidermide tenui, pullidâ indutâ, costis, spirâlibus submoniliformibus, et costellis interstitialibus regularibus concentricis cancellatâ; spirâ acuminatâ, anfractibus superis angulatis, carinatis; aperturâ subtrigona, anticè acuminatâ; umbilico angusto.*

THE LATTICED TRICHOTROPIS. Shell fusiform, covered with a thin, pale epidermis, cancellated with slightly beaded spiral ribs, and interstitial regular small concentric ribs; spire acuminated, whorls angular, carinated above; aperture subtrigonal, anteriorly acuminated; umbilicus narrow.

A. ADAMS, MS.

Hab. New Zealand.

Species 11. (Mus. Brit.)

TRICHOTROPIS INERMIS. *Tri. testâ subfusiformi, epidermide stramineo indutâ, costis spirâlibus submoniliformibus, rotundis, crassiusculis crebris et interstitiis angustis striatis sculptâ; anfractibus angulatis, supra suturam bicostatis; umbilico medioevi; aperturâ subovatâ, anticè acuminatâ.*

THE UNARMED TRICHOTROPIS. Shell somewhat fusiform, covered with a straw-coloured epidermis, sculptured with slightly beaded, rounded, rather thick, close, spiral ribs, and narrow, striated interstices; whorls angular, two-ribbed above the suture; umbilicus middle-sized; aperture rather ovate, anteriorly acuminated.

HINDS. Voyage of the *Sulphur*, vol. ii., figs. 13, 14.

Hab. N.W. America.

The spiral ribs in this species are rounded and near together.

Species 12. (Mus. Brit.)

TRICHOTROPIS CONICA. *Tri. testâ pyramidatâ, stramineâ, vir umbilicatâ; spirâ conicâ, elevatâ; anfractibus tricarinatis, lateribus declivibus; columellâ angustâ, tortuâ; aperturâ subquadratâ; anticè planatâ.*

THE CONICAL TRICHOTROPIS. Shell pyramidal, straw-coloured, scarcely umbilicated; spire conical, elevated; whorls three-keeled with sloped sides; columella narrow, tortuous; aperture rather square, flattened anteriorly.

MÜLLER.

Hab. Greenland.

Species 13. (Mus. Brit.)

TRICHOTROPIS COSTELLATA. *Tri. testâ fusiformi, subtrigona, tenui, costellis tribus superioribus majoribus, tribus quatuor inferioribus hirsutis, cinctâ, angustè umbilicatâ; aperturâ subtrigona, anticè acuminatâ.*

THE SMALL-RIBBED TRICHOTROPIS. Shell fusiform, subtrigonal, thin, encircled with three upper, larger, and four lower, smaller, hairy ribs; narrowly umbilicated; aperture subtrigonal, anteriorly acuminated.

COTHROY. Boston Journal.

Hab. N. America.

In *Trichotropis borealis* the ribs are thick and equal. In this species, otherwise much resembling it, the three upper ribs are thin, and the four lower ones still thinner. The entire shell is also thinner, and the umbilicus narrow.

