

XXII. *Descriptions of some new Species of Calyptræidæ.* By W. J. BRODERIP, Esq.,
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AFTER an inspection of perhaps the largest collection of *Calyptræidæ* ever brought together, I am inclined to think that the best specific characters are to be found in the markings or sculpture of the external shell, in the shape of the delicate internal chamber or cup (*cyathus*, as I have designated it in *Calyptræa* and *Calypeopsis*), and in the mode of its adhesion to the inside of the limpet-like shell which contains and protects it. External form, the character solely relied on by Lamarck, varies so much, according to the accidents of locality, that very little reliance is to be placed upon it; for the animal seems to accommodate the shell entirely to the circumstances under which it is placed. I have before me specimens taken from under the same stone, evidently of the same species, varying in shape from a regular high cone to an almost flat surface, with nearly every intervening irregularity of circumference that can be imagined. Thus much I have ventured as an apology for not laying great stress on that which satisfied Lamarck, who did so much for the science; but when it is remembered that he has only described four recent and two fossil species of *Calyptræa* and but six species of *Crepidula*, it will readily occur to the reader that he had not the opportunities of judging of the value of external shape which the rich collection brought home by Mr. Cuming has afforded me. That collection contains all the species that are described in the present communication.

M. Deshayes has given the anatomy of *Calyptræa Sinensis*, Lam., with his usual accuracy; and M. Lesson, in the 'Zoologie de la Coquille,' has divided the *Calyptrææ* and *Crepidulæ* into several subgenera, observing that it is immaterial by which of the above-mentioned names the leading genus is known. M. Lesson chooses *Calyptræa*, and the following arrangement will be very nearly the same as his, though it may be necessary to make some slight alterations, and to extend the definition of his subgenus *Calyptræa*.

M. Lesson has founded his arrangement upon the following observations. "L'animal des calyptrées et des crépidules nous paraît ne différer en rien d'essentiel; et quant à la cloison du test, soit que cette cloison soit transversale, soit qu'elle ne consiste qu'en lamelles annexées au fond de la coquille, elle présente des passages de ces deux états et ne peut servir qu'à établir de simples sous-genres au grand genre *calyptræa* ou *crepidula* comme on voudra l'appeler. Voici ce que nous pensons qu'on pourrait admettre dans l'état actuel de nos connaissances."¹

¹ Zoologie de la Coquille, tom. ii. p. 388. *et seq.*

The philosophical view which M. Lesson has taken of this subject is entirely confirmed, as far as regards the anatomical part of it, by Mr. Owen, who gives me the following result of his investigations founded on the dissection of Mr. Cuming's specimens. "The soft parts of *Crepidula*," says Mr. Owen, "are the same with those of *Calyptrea* in all essential points of structure, differing only in the proportionate extent of the anterior part of the foot, and dorsal groove of the mantle." The truth of the observation on the gradations of form of the inner chamber will strike every zoologist who views Mr. Cuming's extensive collection; and it should be recollected that M. Lesson came to this conclusion from the study of materials comparatively slender.

As the memoir of M. Lesson must deservedly become a leading authority on this family of *Gasteropods*, it becomes the more necessary to point out an error of the draftsman, which, as I do not find that M. Lesson has observed upon it, may probably have escaped that gentleman's notice. In the figure of *Calyptrea* (*Crepipatella*) *Adolphei*¹, the position of the head of the animal is wrong; its real situation is nearly opposite to the point which it occupies in M. Lesson's plate. I have, in company with Mr. Owen, examined many specimens, and there are some yet undisturbed in the Museum of the Royal College of Surgeons in London which leave no doubt on this subject; indeed, it would be contrary to all analogy and the general rules of animal mechanism were the fact otherwise. The position of the head in M. Deshayes's plate is correct.

CALYPTRÆIDÆ.

Subgenus CALYPTRÆA.

Testa subconica, subacuminata, cyathi basi adhærente, lateribus liberis.

α. *Cyatho integro.*

1. CALYPTRÆA RUDIS.

Tab. XXVII. Fig. 1.

Cal. testâ fuscâ, subdepressâ, suborbiculari, radiatim corrugatâ; limbo crenato; cyatho concentricè lineato, albido, irregulariter subcirculari; epidermide subfuscâ.

Diam. 2 poll., alt. $\frac{7}{8}$.

Hab. in Americâ Centrali. (Panama and Real Llejos.)

This species, whose white onyx-like cup, adhering only by its base, shows to great advantage against the ruddy brown which is the general colour of the inside of the protecting shell, was found under stones. The young shells are the flattest and most regular in form, but their inside is generally of a dirty white dimly spotted with brown. The measurement is taken from the largest specimens.

¹ Zoologie de la Coquille, Atlas, Mollusques, Pl. 15. fig. 2. A.

β. *Cyatho hemiconico, longitudinaliter quasi diviso.* (Calyptræa, Less.)

2. CALYPTRÆA CORRUGATA.

Tab. XXVII. Fig. 2.

Cal. testá subalbidá, suborbiculari, subdepressá, corrugatá, intùs nitente; cyatho concentricè lineato, producto; epidermide fuscá.

Diam. $\frac{5}{8}$ poll., alt. $\frac{8}{10}$.

Hab. in Americâ Centrali. (Guacomayo.)

Found under stones at a depth of fourteen fathoms.

3. CALYPTRÆA VARIA.

Tab. XXVII. Fig. 3.

Cal. testá albidá, suborbiculari, crassiusculá, longitudinaliter creberrimè striatá; cyatho concentricè lineato, crassiusculo, producto.

Diam. $1\frac{2}{3}$ poll., alt. max. $\frac{7}{8}$, alt. min. $\frac{2}{3}$.

Hab. in Oceano Pacifico. (Lord Hood's Island, the Gallapagos, and the Island of Muerte in the Bay of Guayaquil.)

This is a very variable species allied to *Cal. equestris*, Lam., and taking almost every shape which a *Calyptræa* can assume. It differs in thickness according to locality and circumstances. The thickest individuals were found at the Gallapagos and Lord Hood's Island; at the former place on shells, at the latter on the reefs. Those from Muerte are the thinnest and the most depressed.

4. CALYPTRÆA CEPACEA.

Tab. XXVII. Fig. 4.

Cal. testá albá, suborbiculari, subconcvá, tenui, diaphaná, striis numerosis subcorrugatá, intùs nitente; cyathi terminationibus lanceolatis.

Long. $1\frac{1}{2}$ poll., lat. $1\frac{1}{8}$, alt. $\frac{3}{4}$.

Hab. in sinu Guayaquil. (Island of Muerte.)

This was dredged up, adhering to dead shells, from sandy mud at a depth of eleven fathoms, by Mr. Cuming. Besides other differences, the terminating points of the divided *cyathus* are much more lanceolate than they are in *Cal. varia*.

5. CALYPTRÆA CORNEA.

Tab. XXVII. Fig. 5.

Cal. testá suborbiculari, complanatá, albidá, subdiaphaná, concentricè lineatá et radiatim striatá, intùs nitente.

Diam. $\frac{6}{8}$ poll., alt. $\frac{1}{8}$.

Hab. ad Aricam Peruviae.

Dredged up from sandy mud at a depth of nine fathoms.

Subgenus CALYPEPSIS, *Less.*

Cyatho interno integro, lateraliter adhærente.

Before I proceed to describe the species of this subgenus which appear to me to be new, I must refer to the finest specimens of *Cal. Extinctorium*, Lam., and of *Cal. spinosa*, Sow., and its varieties, that I have hitherto seen. The specimen of *Cal. Extinctorium* was taken by Mr. Cuming at Guaymas in the Gulf of California: its length is $2\frac{6}{8}$ inches, its breadth $2\frac{3}{8}$, and its height $1\frac{1}{8}$. The large-spined varieties of *Cal. spinosa* (Tab. XXVIII. fig. 8.) were found under stones at low water at St. Elena and at Lobos Island, and some small-spined varieties were dredged from sandy mud, adhering to stones and shells, at a depth of from six to eight fathoms, at St. Elena. In all the varieties the spines are tubular. The originals are in Mr. Cuming's collection. It will be observed that the specimen of *Cal. spinosa* is so flat that the edge of the cup is considerably below the margin of the external shell, whereas the species is generally more or less conical, the *apex* of the cone often rising to a fair height.

6. CALYPTRÆA RADIATA.

Tab. XXVII. Fig. 6.

Cal. testâ conico-orbiculari, albidâ fusco radiatâ, striis longitudinalibus crebris; limbo crenulato; apice acuto, subrecurvo; cyatho depresso.

Diam. 1 poll., alt. $\frac{5}{12}$.

Hab. in Americâ Meridionali. (Bay of Caraccas.)

The cup of this pretty species is pressed in, as it were, on one side, and adheres to the shell, not only by its *apex*, but also by a lateral seam, which scarcely reaches to the rim of the cup. The *apex* of the younger specimens, both externally and internally, is generally of a rich brown, and there can be little doubt that when first produced they are entirely of that colour.

Found in sandy mud on dead shells, at a depth of from seven to eight fathoms.

7. CALYPTRÆA IMBRICATA.

Tab. XXVII. Fig. 7.

Cal. testâ albidâ, crassâ, subconicâ, ovatâ, costis longitudinalibus et squamis transverse imbricatâ; apice subincurvo, acuto; limbo crenato; cyatho depresso.

Diam. 1 poll., lat. $\frac{6}{8}$, alt. $\frac{6}{8}$.

Hab. ad Panamam.

Found on stones in sandy mud, at a depth of from six to ten fathoms.

8. CALYPTRÆA LIGNARIA.

Tab. XXVII. Fig. 8.

Cal. testâ crassâ, fuscâ, deformi, striis corrugatâ; apice prominente, subadunco, acuto, posteriore.

Diam. $1\frac{1}{8}$ poll., lat. $\frac{6}{8}$, alt. $\frac{7}{8}$.

Hab. in Americâ Centrali. (Real Llejós.)

The majority of individuals of this species have their shells so deformed that they set description at defiance; the comparatively well-formed shell occurs so rarely, that it may be almost considered as the exception to the rule. When in this last-mentioned state, the circumference of the shell is an irregular somewhat rounded oval, and it rises into a form somewhat resembling the back of *Ancylus*, with the *apex* very sharp and inclining downwards. The shell in this shape is generally less corrugated than it is in deformed individuals, though some of those are comparatively smooth; but, in both states, the shell is striated immediately under the *apex*, and is, for the most part, corrugated on the other side of it.

Found under stones.

Var. α . *Enormiter conica, cyatho valdè profundo.*

Tab. XXVII. Fig. 8*.

This variety is often one inch and six eighths in height, and its cup nearly one inch deep, while the diameter of the shell at the aperture does not exceed one inch.

Found on shells in sandy mud, at the depth of four fathoms, at the island of Chiloe.

9. CALYPTRÆA TENUIS.

Tab. XXVII. Fig. 9.

Cal. testâ irregulari, tenui, subdiaphanâ, creberrimè striatâ, albidâ, interdum fusco pallidè strigatâ.

Diam. 1 poll., alt. $\frac{1}{2}$.

Hab. ad Peruvix oras. (Samanco Bay.)

Found on living shells in muddy sand, at a depth of nine fathoms.

10. CALYPTRÆA HISPIDA.

Tab. XXVII. Fig. 10.

Cal. testâ subovatâ, subconicâ, albâ strigis maculisque subpurpureo-fuscis variâ, striis frequentibus et spinis tubularibus erectis hispida; limbo crenulato; apice turbinato; cyatho subdepresso.

Diam. $\frac{1}{2}$ poll., lat. $\frac{3}{8}$, alt. $\frac{3}{8}$.

Hab. in sinu Guayaquil. (Island of Muerte.)

This elegant species, the circumference of whose somewhat depressed cup is free with the exception of one part, where it adheres laterally, was found on dead shells in sandy mud at a depth of twelve fathoms.

11. CALYPTRÆA MACULATA.

Tab. XXVII. Fig. 11.

Cal. testâ ovatâ, albidâ purpureo-fusco maculatâ, longitudinaliter rugosâ; limbo serrato; apice subturbinato, subincurvo.

Diam. $\frac{1}{2}$ poll., lat. $\frac{7}{8}$, alt. $\frac{3}{8}$.

Hab. in sinu Guayaquil. (Island of Muerte.)

The external contour of this shell, more especially in the position of the subturbinated apex, much resembles that of *Ancylus*. The circumference of the cup is free, excepting at one point, where it adheres laterally throughout its length.

Found in sandy mud on dead shells, at a depth of eleven fathoms.

12. CALYPTRÆA SERRATA.

Tab. XXVIII. Fig. 1.

Cal. testâ suborbiculari, albâ, subpurpureo vel fusco interdum fucatâ vel strigatâ, costis longitudinalibus prominentibus rugosis; limbo serrato; apice subturbinato; cyatho valdè depresso.

Diam. $\frac{1}{2}$ poll., lat. $\frac{5}{8}$, alt. $\frac{3}{8}$.

Hab. ad Real Llejos et Muerte.

Var. testâ albâ.

Found on dead shells in a muddy bottom, at the depth of from six to eleven fathoms. There is a variety entirely white.

Subgenus SYPHOPATELLA, Less. ?

Cyatho seu potius laminâ internâ subtrigonâ, subcirculari, latere dextro replicato.

I think it very probable that the five following species belong to M. Lesson's subgenus *Syphopatella*; but no reference is given in the 'Zoologie', and in a family where

the passages are so very gradual, it is difficult to come to a satisfactory conclusion from an unassisted description, however well written it may be.

13. CALYPTRÆA SORDIDA.

Tab. XXVIII. Fig. 2.

Cal. testá subconicá, sordidè luteá, longitudinaliter subradiatá; apice turbinato; cyatho depresso, subtrigono, haud profundo.

Diam. $\frac{1}{2}$ poll., lat. $\frac{5}{12}$, alt. $\frac{2}{10}$.

Hab. ad Panamam.

This species, the inside and outside of which are of a sordid yellow, is generally covered externally with coral or other marine adhesions. The plate is spoon-shaped.

Found on stones, on a sandy bottom, at a depth of twelve fathoms.

14. CALYPTRÆA UNGUIS.

Tab. XXVIII. Fig. 3.

Cal. testá tenui, conicá, corrugatá, fuscá; apice subturbinato; cyatho depresso, subtrigono.

Diam. $\frac{4}{12}$ poll., alt. $\frac{3}{10}$.

Hab. ad Valparaiso.

The plate is spoon-shaped, but not so shallow as that of *Cal. sordida*.

Found on shells at a depth of from seven to forty-five fathoms.

15. CALYPTRÆA LICHEN.

Tab. XXVIII. Fig. 4.

Cal. testá albidá, interdum pallidè fusco sparsá, subdiaphaná, subturbinatá, orbiculatá, complanatá.

Diam. $\frac{6}{8}$ poll., alt. $\frac{2}{8}$.

Hab. in sinu Guayaquil. (Island of Muerte.)

Found on dead shells in sandy mud, at a depth of eleven fathoms.

16. CALYPTRÆA MAMILLARIS.

Tab. XXVIII. Fig. 5.

Cal. testá albidá, subconicá; apice subpurpureo, mamillari.

Diam. $\frac{5}{10}$ poll., alt. $\frac{4}{12}$.

Hab. in sinu Guayaquil. (Island of Muerte.)

This pretty species varies. It is sometimes milk-white, with the mamillary *apex* of a brownish purple, and with the inside sometimes of that colour, sometimes white, and sometimes yellowish. In other individuals the white is mottled with purplish brown stripes and spots.

Found on dead shells in sandy mud, at a depth of eleven fathoms.

17. CALYPTRÆA STRIATA.

Tab. XXVIII. Fig. 6.

Cal. testâ sordidè albâ, suborbiculatâ, subconicâ, subturbinatâ, striis longitudinalibus elevatis creberrimis corrugatâ, intùs fusco-flavescente.

Diam. $\frac{1}{4}$ poll., alt. $\frac{3}{10}$.

Hab. ad Valparaiso.

Found on shells in sandy mud, at a depth varying from forty-five to sixty fathoms.

18. CALYPTRÆA CONICA.

Tab. XXVIII. Fig. 7.

Cal. testâ conicâ, fuscâ albido maculatâ, subturbinatâ.

Diam. $1\frac{1}{4}$ poll., alt. $\frac{7}{10}$.

Hab. ad Xipixapi et ad Salango.

Found attached to shells in deep water.

Subgenus CREPIPATELLA, *Less.*

Laminâ rotundatâ, apice laterali et subterminali.

19. CALYPTRÆA FOLIACEA.

Tab. XXVIII. Fig. 9.

Cal. testâ suborbiculari, albidâ, foliaceâ, intùs castaneâ vel albâ castaneo variâ.

Diam. 1 poll., alt. $\frac{3}{8}$.

Hab. ad Aricam Peruvix saxis adhærens.

This *Crepidatella*, which bears no remote resemblance to the upper valve of some of the *Chamæ* when viewed from above, was found on exposed rocks near the shore.

20. CALYPTRÆA DORSATA.

Tab. XXVIII. Fig. 10.

Cal. testâ subalbidâ, planiusculâ, costis longitudinalibus irregularibus rugosâ, intùs medio fusco-violaceâ.

Diam. $\frac{3}{8}$ poll., lat. $\frac{1}{2}$.

Hab. ad Sanctam Elenam.

The back of this shell is not unlike the upper valve of some of the *Terebratulæ*.
Found on dead shells in sandy mud, at a depth of six fathoms.

21. CALYPTRÆA DILATATA, Lam.

Varietas intus nigro-castanea.

Tab. XXVIII. Fig. 11.

*Cal. testâ sordidè albâ castaneo strigatâ, intus nitidè nigro-castaneâ, laminâ albâ.*Diam. $1\frac{2}{3}$ poll., lat. $1\frac{1}{3}$, alt. $\frac{1}{3}$.*Hab.* ad Valparaiso.

This highly coloured variety was found on exposed rocks at low water. The pure white of the plate shows to great advantage, lying above the rich back ground of the interior of the shell. In some individuals this internal colour is all but black.

22. CALYPTRÆA STRIGATA.

Tab. XXVIII. Fig. 12.

Cal. testâ subcorrugatâ, sordidè rubrâ albo variâ, intus subrufâ interdum albâ vel albâ rubro-castaneo variâ.

Diam. 1 poll.

Hab. ad Valparaiso.

This varies much both in colour and shape. Some of the specimens are quite flat, and the plate is almost convex. An obscure, subarcuate, longitudinal, whitish, broad streak may be traced on the backs of most of them. It is not impossible that it may be a variety of *Cal. dilatata*.

Found on *Mytili* at depths varying from three to six fathoms.

23. CALYPTRÆA ECHINUS.

Tab. XXIX. Fig. 1.

*Cal. testâ albidâ violaceo maculatâ, interdum fuscâ, striis longitudinalibus creberrimis, spinis fornicatis horridâ, intus flacente vel albâ.*Diam. $1\frac{1}{2}$ poll., lat. $1\frac{1}{3}$, alt. $\frac{2}{3}$.*Hab.* ad Peruvian. (Lobos Island.)

In old specimens the spines are almost entirely worn down, and rough *striæ* only for the most part remain. In this state it bears a great resemblance to the figure given of *Crepidula fornicata* in Mr. Sowerby's 'Genera of Shells', No. 23. f. 1.

Found under stones at low water.

24. CALYPTRÆA HYSTRIX.

Tab. XXIX. Fig. 2.

*Cal. sordidè albâ vel fuscâ, complanatâ, longitudinaliter striatâ, spinis magnis fornicatis apertis seriâtim dispositis, intus albidâ interdum castaneo maculatâ.*Diam. $1\frac{2}{3}$ poll., lat. $\frac{2}{3}$, alt. $\frac{2}{3}$.

Hab. ad Peruviam. (Lobos Island.)

Approaching the last, but differing in being always more flattened, in the comparatively great size of the vaulted spines, and in the comparatively wide interval between them. Still I would not be positive that both are not varieties of *Crepidula aculeata*, Lam.

25. CALYPTRÆA PALLIDA.

Tab. XXIX. Fig. 3.

Cal. testâ sordidè albâ, ovatâ; apice prominente.

Diam. $\frac{7}{8}$ poll., lat. $\frac{5}{8}$, alt. $\frac{3}{8}$.

Hab. ad Insulas Falkland dictas.

Found under stones.

Subgenus CREPIDULA, *Less.*

Laminâ subrectâ, apice postico et submedio.

26. CREPIDULA UNGUIFORMIS, *Lam.*

Varietas complanato-recurva.

Tab. XXIX. Fig. 4.

Long. $1\frac{2}{3}$ poll., lat: $\frac{6}{8}$.

Hab. ad Insulam Chilœn et ad Panamam.

This variety affords a good example of the powers of adaptation of the animal. The shell is either flattened or concave on the back, and recurved, in consequence of its adhesion to the inside of dead shells of *Ranellæ Vexillum*, *cœlata*, &c.

It was dredged from sandy mud, at a depth ranging from four to ten fathoms.

27. CALYPTRÆA LESSONII.

Tab. XXIX. Fig. 5.

Cal. testâ complanatâ, subconcentricè foliaceâ, foliis tenuibus, albâ fusco longitudinaliter strigatâ, intùs albidâ, limbo interno interdum fusco ciliato-strigato.

Long. $1\frac{1}{6}$ poll., lat. $\frac{1}{2}$, alt. $\frac{3}{8}$.

Hab. in sinu Guayaquil. (Island of Muerte.)

This beautiful species, which I have named in honour of M. Lesson, was found under stones at low water. It will remind the observer of the upper valves of some of the *Chamæ*.

28. CALYPTRÆA INCURVA.

Tab. XXIX. Fig. 6.

Cal. testâ fusco-nigricante, tortuosâ, corrugatâ, intùs nigricante, septo albo; apice adunco.

Long. $\frac{6}{8}$ poll., lat. $\frac{1}{2}$, alt. $\frac{3}{8}$.

Hab. ad Sanctam Elenam et ad Xipixapi.

Found on dead shells dredged from sandy mud, at a depth ranging from six to ten fathoms.

29. CALYPTRÆA EXCAVATA.

Tab. XXIX. Fig. 7.

Cal. testâ crassiusculâ, subtortuosâ, lævi, albidâ vel subflavâ fusco punctatâ et strigatâ, intûs albâ, limbo interdum fusco ciliato-strigato.

Long. $1\frac{2}{3}$ poll., lat. $1\frac{1}{8}$, alt. $\frac{5}{8}$.

Hab. ad Real Llejós.

This species is remarkable for the depth of the internal margin before it reaches the *septum* formed by the plate. In *Crepidula adunca*, Sow., this depth is even greater than it is in *Crep. excavata*. The *apex* is close to the margin, obliquely turned towards the right side.

The dimensions are taken from the largest specimen.

30. CALYPTRÆA ARENATA.

Tab. XXIX. Fig. 8.

Cal. testâ subovatâ, albidâ rubro-fusco creberrimè punctatâ, intûs subrubrâ vel albidâ subrubro maculatâ, septo albo.

Long. $1\frac{1}{3}$ poll., lat. $\frac{7}{8}$, alt. $\frac{4}{12}$.

Hab. ad Sanctam Elenam.

This approaches *Crepidula Porcellana*, Lam. The *septum* is somewhat distant from the margin; and the *apex*, which is also somewhat distant from it, is obtuse, and obliquely turned towards the right side.

From sandy mud on shells, at a depth ranging from six to eight fathoms.

31. CALYPTRÆA MARGINALIS.

Tab. XXIX. Fig. 9.

Cal. testâ subovatâ, sublævi vel vix corrugatâ, subflavâ vel albidâ fusco strigatâ, intûs nigricante vel flavâ fusco strigatâ, septo albo.

Long. $1\frac{1}{3}$ poll., lat. $\frac{1}{2}$, alt. $\frac{1}{12}$.

Hab. ad Panamam et ad Insulam Muerte.

This species was found on stones and shells in sandy mud, at a depth ranging from six to ten fathoms. The white *septum* shows beautifully against the black brown of the interior. The *apex* is almost lost in the margin, and is directed towards the right side.

32. CALYPTRÆA SQUAMA.

Tab. XXIX. Fig. 10.

Cal. testâ suborbiculari, complanatâ, sublævi, subtenui, pallidè flavâ vel albidâ fusco substrigatâ, intûs subflavâ vel subflavâ fusco strigatâ.

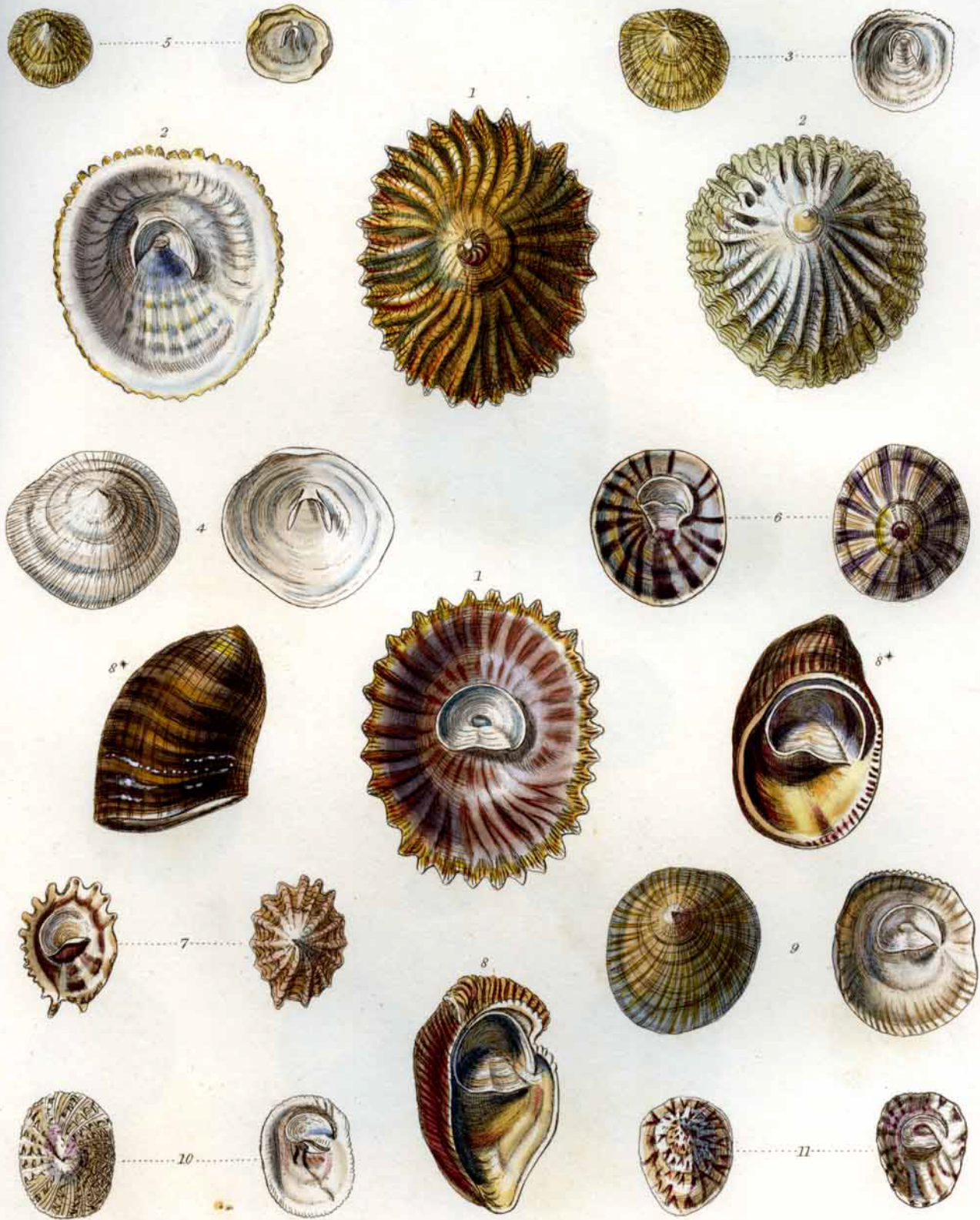
Long. 1 poll., lat. $\frac{1}{2}$, alt. $\frac{2}{10}$.

Hab. ad Panamam.

The *apex* of this very flat species is lost in the margin.

Found under stones.

I have before me several more of this family, some of which may be new; but I hesitate to describe them till I have more satisfactory evidence that they are not varieties or species already recorded. Many shells of *Calyptræidæ* are figured by Martini, Lister, and other authors; and it is not improbable that some of the species above described may have afforded the subjects from which the engravings were made: but the figures are for the most part so doubtful that no dependence can be placed upon the majority of them, and they rather embarrass than assist the inquirer.



G.B. Sowerby, Jun. del. & sculp.

Calyptraea.

- (*Calyptraea*) 1. *Cal. rudis*. 2. *Cal. corrugata*. 3. *Cal. varia*. 4. *Cal. cepacea*.
 5. *Cal. cornea*. (*Calypsopepsis*) 6. *Cal. radiata*. 7. *Cal. imbricata*. 8. *Cal. signaria* & var.
 9. *Cal. tenuis*. 10. *Cal. hispida*. 11. *Cal. maculata*.



Calyptreae.

- (*Calyptropsis*.) 1. *Cal. serrata*. (*Synhopatella*?) 2. *Cal. sordida*. 3. *Cal. Unguis*.
 4. *Cal. Lichen*. 5. *Cal. mamillaris*. 6. *Cal. striata*. 7. *Cal. conica*.
 8. *Cal. spinosa*, var. (*Crepipatella*.) 9. *Cal. foliacea*. 10. *Cal. dorsata*.
 11. *Cal. dilatata*, var. 12. *Cal. strigata*.



E. Sowerby, Jun. del. & sculp.

Calyptraea.

(*Crepidatella*.) 1. *Cal. Echinus*. 2. *Cal. Hystrix*. 3. *Cal. pallida*.
 (*Crepidula*.) 4. *Cal. unguiformis*, var. 5. *Cal. Lessonii*. 6. *Cal. incurva*.
 7. *Cal. excavata*. 8. *Cal. arenata*. 9. *Cal. marginalis*. 10. *Cal. Squama*.