

DESCRIPTIONS OF SOME NEW SPECIES OF HELICOID AND
OPERCULATE LAND-SHELLS FROM CEYLON.

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PLATE XVI.

THE material on which the following pages are founded consists of some specimens collected by Mr. O. Collett and Mr. H. B. Preston: the number of new forms, exclusive of some not yet identified, is surprising, when the careful researches of Benson, Nevill, and others are borne in mind. Since both collectors are still at work, it is hoped that further discoveries await them, and that sufficient material for a faunal catalogue may eventually be obtained.

Save for one species (*Corilla anax*, Benson), the known forms of *Corilla* are confined to Ceylon, and are as follows:—

1. *C. Beddomeæ*, Hanley. Haycock Mountain (Beddome); near Watawala (Collett).
2. *C. Charpentieri*, Pfciffer.
C. Charpentieri var. *Ilindunensis*, Nevill.
3. *C. Colletti*, n.sp. Balangoda (Collett).
4. *C. erronea*, Albers. Kandy (Simon); Nuwara-Eliya (Simon); slopes of Pidrutalagala, at 7,000 feet (Preston).
C. erronea var. *erronella*, Nevill.
5. *C. Fryæ*, Gude. Albion Estate, Lindula District (Mrs. Fry).
6. *C. Gudei*, n.sp. Kurunegala, at 1,500 feet (Collett).
7. *C. Humberti*, Brot. Near Watawala, at 4,000 feet (Collett).
8. *C. odontophora*, Benson. Near Fort McDonald, Bandarawella, and Bibiligama, at 4,500 feet (Layard); Alwick and Kirklees Estates (Preston; very fine specimens).
9. *C. Rivolii*, Deshayes. Kandy (Nevill, Preston).

It will probably be most convenient for the purposes of recognition if the diagnoses of the two new forms of this genus are drawn up by means of comparisons instituted with their known allies.

1. *CORILLA COLLETTI*, n.sp. Pl. XVI, Figs. 11–13.

Shape strongly recalling that of *C. Rivolii*, but the new species is much smaller in size. Sculpture also similar in nature, but finer and more closely set. The mouth in the present species not so much contracted and not quite so descending; the lip not nearly so reflexed or thickened. The palatal and parietal lamellæ are the same in number in both species, but in *C. Colletti* the former approach more nearly to the lip, especially the upper two. Of the parietal lamellæ, the upper and lower are more nearly parallel, and not so convergent, while the

middle one is much shorter than in *C. Rivolii*, and does not enter so far into the shell. Long. 21 to 21·25, lat. 14 to 15·5, alt. 6 to 5·75 mm.

Hab.—Balangoda, Ceylon (Collett).

2. *CORILLA GUDEI*, n.sp. Pl. XVI, Figs. 8-10.

Size and shape similar to those of *C. erronea*; the last whorl, however, more descending and more contracted at the spot where the lamellæ show most conspicuously through the shell. Sculpture nearly as strongly marked on the lower as on the upper surface; *C. Gudei* differing thereby from all other known Ceylon forms akin to it and recalling the Indian *C. anax*. Outer lip slightly more reflexed than in *C. erronea*; the mouth not so drawn out and slightly more rounded. Palatal and parietal lamellæ the same in number as in *C. erronea*, but somewhat shorter; differing also in situation by being more nearly parallel, especially (counting from above) the second and third palatal ones. Umbilical area more impressed in the present species. Colour a little lighter than in *C. erronea*; a few specimens have a rosy tint. Long. 23-22, lat. 16-17, alt. 7-6·5 mm.

Hab.—Kurunegala, at 1,500 feet, Ceylon (Collett).

As compared with *C. anax*, the present species differs in having one whorl more, the whorls being more flattened above, the lip more reflected, and the last whorl not so inflated or produced.

I have pleasure in dedicating the species to Mr. Gude, who has so recently reviewed the group.

3. *EUPLECTA COLLETTI*, n.sp. Pl. XVI, Figs. 5, 6.

Testa subperforata, tenuis, lincis incrementibus sculpta, sub lente obsolete minutissime granulosa, cornea, pellucida, infra ad basim, albotincta, pallidior; spira subdepressa, apice subprominulo, obsolete microscopice granulosa; anfr. 4½-5, subplani regulariter accrescentes, ultimus acute carinatus, antice non descendens, basi subinflatus; apertura quadrato-ovata; peristoma rectum, acutum, margine basali sub-arcuato. Diam. max. 21, min. 18 mm.; alt. 9 mm.

Hab.—Watawala, Ceylon (Collett).

This species is nearly related to the *Helix Isabellina* of Pfeiffer, of which I figure (Pl. XVI, Fig. 7), for the purposes of comparison, a specimen of about the same size as the new species, collected by Mr. Preston at Uda Pussellawa. The present species is smaller in size, and the apical sculpture is more obsolete. The whorls do not increase so rapidly, but with more regularity; whilst the almost entire absence of spiral striæ is noteworthy; the mouth is not so ovate, being more drawn out to one side. A fairly long series of this species has been examined.

4. *EUPLECTA SCOBINOIDES*,¹ n.sp. Pl. XVI, Figs. 1, 2.

Testa perforata, depresso-conoidea, superne confertim et arcuatim costulata, striis confertis spiralibus granulatum decussata, lutescenti-

¹ *Scobina*, 'a rasp.'

cornea, translucens, subtus nitidula, albido-cornea, fere lævis, radiatim striatula; spira subconoidea, apice obtusula, sutura marginata; anfr. 5-5½, plano-convexi, lente accrescentes, ultimus non descendens, ad peripheriam carinatus, carina marginata; apertura lunata; peristoma simplex, rectum, margine columellari ad perforationem breviter reflexum. Diam. max. 8.9, min. 8 mm.; alt. 4 mm.

Hab.—Watawala, Ceylon (Collett).

5. *POLITA NOTABILIS*, n.sp. Pl. XVI, Figs. 21-23.

Testa depresso-conoidea, striatula, nitida, griseo-cornea, tenuis, medioeriter et perspective umbilicata, apice acutula; anfr. 5, lente accrescentes, convexiusculi, sutura impressa; apertura lunato-ovalis; peristoma rectum, simplex. Diam. max. 5, min. 4.5 mm.; alt. 2.15 mm.

Hab.—Watawala, Ceylon (Collett).

It is almost hopeless to devise a description of a species of this form which will prove sufficient for its recognition, and the assistance of the artist must be called in if there is to be any hope of its identification by future workers. The genus *Polita*, although one would hardly expect to find it in Ceylon, appears conchologically quite suitable, and until we are acquainted with its anatomy the species may be placed there with *P. nitida*, etc.

6. *MACROCHLAMYS? CIRCUMSCULPTA*, n.sp. Pl. XVI, Figs. 3, 4.

Testa perforata, convexo-depressa, nitida, coreo-hyalina; spira breviter conoidea, apice obtusa; sutura impressa; anfr. 5, convexi, arte convoluti, obsolete spirally lirati, ultimus non descendens, basi inflatus; apertura lunaris; peristoma rectum, acutum, margine columellari ad perforationem dilatato, subreflexo. Diam. max. 5, min. 4.7 mm.; alt. 3 mm.

Hab.—Watawala, Ceylon (Collett).

This species is nearly related to the *Helix Thwaitesi* of Pfeiffer (which is also obsoletely spirally lirated), but may be at once distinguished by the fact that its breadth is greater in proportion to the number of whorls. The umbilicus is also slightly smaller in the present species, the spire is not so much raised in proportion, and the nucleus is larger. The sculpture is stronger than in *H. Thwaitesi*, and a few of the stronger lines of growth intersect the revolving liræ, thus giving the shell a decussated appearance under a lens.

In 1871 Nevill recorded, under MS. names only, three species of *Cyathopoma* from Ceylon. Colonel Beddome, in 1875, described¹ one of these as *C. Ceylanicum*; and when describing another species from South India (*C. album*), recorded this latter doubtfully as from Dimbola, Ceylon. Dr. Jousseume added *C. Marieæ* in 1894, which appears to be identical with Nevill's MS. *C. Dickoyense*; whilst the latter's third species is here described as *C. artatum*, so that all the manuscript names are now accounted for.

¹ Proc. Zool. Soc., 1875, pp. 442-53, pls. lii, liii.

Some specimens found by Mr. Preston at Uda Pussellawa appear to belong to *C. Mariae*, which was described from Nuwara-Eliya. I now describe three new forms.

7. *CYATHOPOMA ARTATUM*, n.sp. Pl. XVI, Figs. 19, 20.

Testa dextrorsa, late et perspective umbilicata, depresso-turbinata, apice acutula, periostraco calcareo, deciduo, induta, sub hoc albidocornea, polita; anfr. $4\frac{1}{2}$, regulariter accrescentes, spiraliter lirati, sub lente leviter transversim striati, ultimus carinis duabus supra peripheriam, unica ad peripheriam, et sex liris magis approximatis sub peripheriam et in umbilico, penultimus duabus carinis; apertura circularis, peristomate simplice, continue, intus leviter incrassato; operculum valde concavum, multispirale. Alt. 1.3, lat. 2 mm.

Hab.—Uda Pussellawa, Ceylon (Preston).

This minute species is noteworthy for being clothed with a periostracum of a very chalky nature, which, however, appears to be very easily rubbed off, and many specimens only fully exhibit it within the umbilical area. The three upper carinations are sharply edged, while those below the periphery and in the umbilicus are rounded and thread-like.

8. *CYATHOPOMA PRESTONI*, n.sp. Pl. XVI, Figs. 17, 18.

Testa dextrorsa, elevata, pyramidalis, mediocriter et perspective umbilicata, periostraco brunneo leviter induta, apice obtusula; anfr. 5, regulariter accrescentes, leviter et obsolete spiraliter lirati, transversim striati, ultimus carinis obsoletis quinque (?), fere laevis in umbilico; sutura bene impressa; apertura fere circularis, continua, peristomate leviter intus incrassato. Alt. 2, lat. 1.5 mm.

Hab.—Uda Pussellawa, Ceylon (Preston).

In form this species is intermediate between *C. Mariae* and *C. artatum*, with a well-marked suture. The brown periostracum and nearly obsolete carinae, with the almost smooth umbilical area, are its distinguishing features.

9. *CYATHOPOMA TURBINATUM*, n.sp. Pl. XVI, Figs. 15, 16.

Testa dextrorsa, depresso-pyramidalis, late et perspective umbilicata, periostraco brunneo levissime induta, apice obtusula; anfr. 5, celeriter accrescentes, leviter et obsolete spiraliter carinati, in umbilico lirati, ultimus carinis obsoletis quatuor, duabus supra et unica sub peripheriam, unica major ad peripheriam, liris sex (?) in umbilico; sutura impressa; apertura circularis. Alt. 2.2, lat. 2.5 mm.

Hab.—Uda Pussellawa, Ceylon (Preston).

At first sight this shell might be taken for a variety of *C. Shevroyanum*, Beddome, from the Salem district, to which it is very nearly allied. It is, however, smaller, differs in the relative proportion of height to breadth (a specimen I have of *C. Shevroyanum* measures: alt. 2.3, lat. 3 mm.), and is of a thinner texture. The carinations above are also not so strongly marked,

while the liræ in the umbilicus are stronger and appear to be more numerous.

The *Diplommatina* of Ceylon are first mentioned under manuscript names by Nevill in 1871, and in 1875 Colonel Beddome described *D. (Nucida) Pedronis* and *D. (Nucida) Ceylanica*.

10. DIPLOMMATINA (NICIDA) PRESTONI, n.sp. Pl. XVI, Fig. 14.

Testa dextrorsa, vix rimata, elongato-ovata, glabra, hyalina, nitidula; spira conoidea, apice obtusula; sutura impressa; anfr. $5\frac{1}{2}$ -6, convexi, primi regulariter crescentes, ultimus angustior quam antepenultimus, regione umbilicari impressa, basi subearinata; apertura ovato-circularis, fere ovalis, peristomate incrassatulo, brunneo. Alt. 3.5, lat. 1.8 mm.

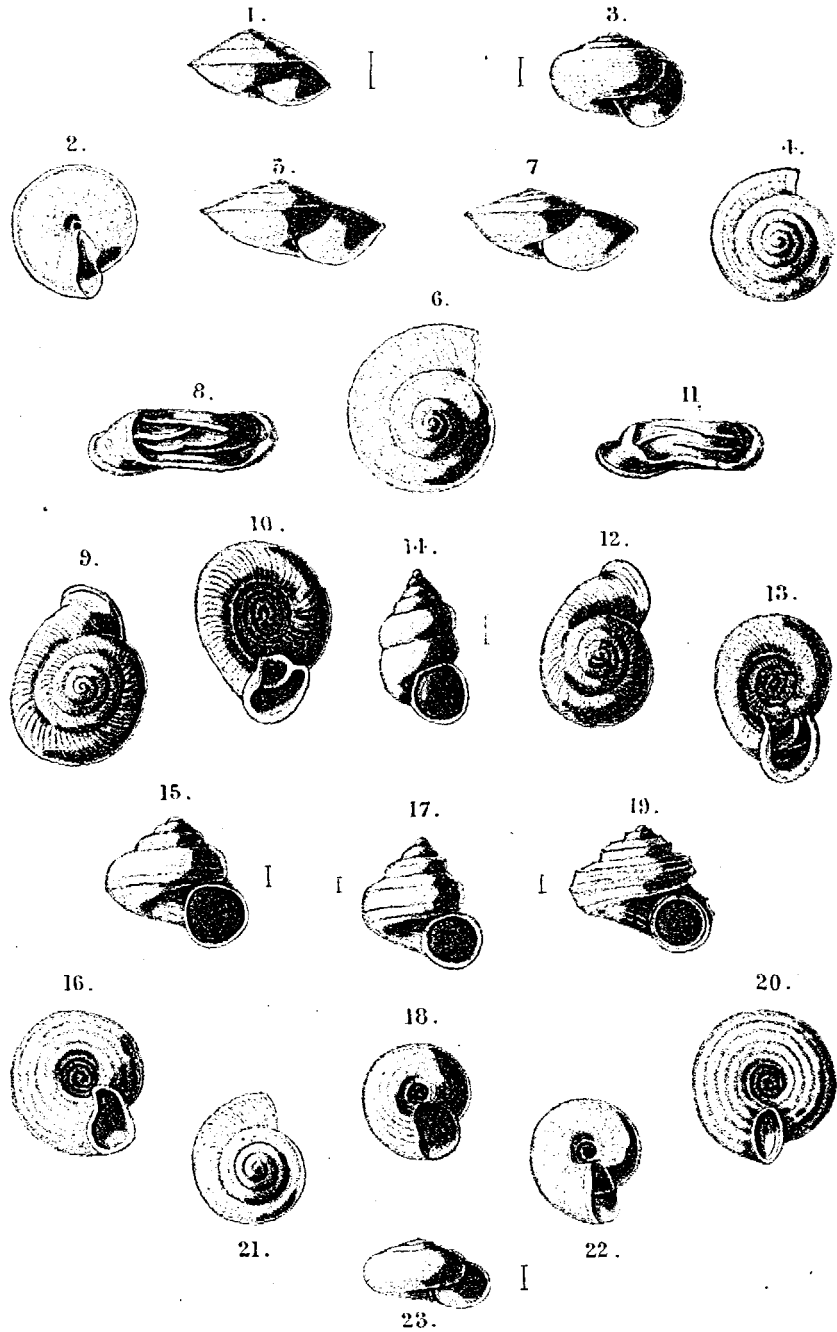
Hab.—Uda Pussellawa, Ceylon (Preston).

A handsome little hyaline species, with a brown peristome. It may be readily separated from *D. Pedronis*, its nearest ally, by its greater size and its difference in colour and shape. Traces of spiral sculpture may be seen on the last whorls.

Other examples of this genus were found by Mr. Preston, but since I am in doubt whether they belong to one or to two species, I forbear to describe them until further material comes to hand.

EXPLANATION OF PLATE XVI.

- Figs. 1, 2. *Euplecta scobinoides*, n.sp.
 ,, 3, 4. *Macrochlamys? circumsculpta*, n.sp.
 ,, 5, 6. *Euplecta Colletti*, n.sp.
 ,, 7. „ *Isabellina*, Pfeiffer.
 ,, 8-10. *Corilla Gudei*, n.sp.
 ,, 11-13. „ *Colletti*, n.sp.
 ,, 14. *Diplommatina Prestoni*, n.sp.
 ,, 15, 16. *Cyathopoma turbinatum*, n.sp.
 ,, 17, 18. „ *Prestoni*, n.sp.
 ,, 19, 20. „ *artatum*, n.sp.
 ,, 21-23. *Polita notabilis*, n.sp.



J. Green del. et lith.

Mintern Bros. imp.

NEW LAND SHELLS FROM CEYLON.