LIST OF THE SPECIES OF CATAULUS FOUND IN CEYLON, WITH DESCRIPTIONS OF SOME NEW LAND-SHELLS FROM THAT ISLAND.

By E. R. SYKES, B.A., F.Z.S., etc.

Read 11th February, 1898.

PLATE V.

Since my former paper was read a year ago, a considerable amount of additional material has passed through my hands. In the process of identification, two or three points referring to the validity of species

have occurred, that it will be well to deal with first.

Pfeiffer in 1853 described ² Helix Thwaitesi, and Reeve gave a figure of it, ³ drawn from an example in the original type series; Dr. Jousseaume in 1894 ⁴ described Microcystis suavis from Nuwara-Eliya, and renamed Reeve's figure as M. Nuwara, stating that it was not the same as Pfeiffer's species, and that both occurred at Nuwara-Eliya. I have examined specimens said to have been identified as M. Thwaitesi and M. suavis by Dr. Jousseaume, and also Pfeiffer's types, and come to the following conclusion: that Dr. Jousseaume's M. Thwaitesi is not that species, but is my Macrochlamys circumsculpta, while his M. Nuwara is really M. Thwaitesi, as is also his M. suavis. This latter appears to be a variety with the spire a little more depressed, the umbilicus a trifle larger, and the mouth slightly different in shape; it may be of varietal, certainly not of specific rank.

I cannot trace sufficient distinction between *Helix bistrialis*, Beck, *H. Ceylanica*, Pfr., and *H. Taprobanensis*, of Dohrn, to warrant in my opinion their separation as independent species; they appear to be all forms of one species, varying somewhat in size, shape, and banding. Colonel Godwin-Austen, from anatomical considerations, has recently

placed them in his genus Nilgiria.5

Helix verrucula was described by Pfeiffer⁶ from Cuming's collection; recently Dr. Jousseaume has renamed the figure given by Hanley and Theobald as Nigritella nerva: inasmuch as they state in the explanation of plates that "Cuming's type, now in the British Museum, is here represented," the new name seems an unnecessary expenditure of ink. The reference to the Proc. Zool. Soc. given by Dr. Jousseaume refers to H. hyphasma, not the present species.

² Proc. Zool. Soc., 1853, p. 125.

¹ Proc. Malac. Soc., vol. ii, pp. 233-7, pl. xvi.

<sup>Conch. Icon., sp. 1,336.
Mem. Soc. Zool. France, vii, p. 10, pl. iv, fig. 3.
Land and Fresh-water Moll. India, vol. ii, p. 80.</sup>

Proc. Zool. Soc., 1854, p. 50.
 Conch. Ind., pl. cl, fig. 9.

Helix biciliata, Pfeiffer, will, I think, prove to be a Plectopylis (Sykesia); palatal armature is present, but I have only a single dead shell, found by Mr. Preston at Patapolla (6,500 feet). Mr. Preston also found plentiful at Uda Pussellawa a species which appears to be a variety of Helix Huttoni, Pfr.; it is slightly smoother, and the colour is more of a reddish-brown: he also found Pupa muscerda, Bens., at

Batticaloa, which is some distance from the original habitat.

Recently Herr Kobelt and Dr. Möllendorff have given a list of the genus Cyathopoma; but so far as regards the Ceylon forms it is very imperfect. They have omitted C. Mariæ, Jouss., altogether; they have included C. Dickoyense, Nevill, which is only a manuscript name, and misspell it; moreover, they have recorded C. atrosetosum, Bedd., as coming from Ceylon, whereas it is a southern Indian species. In the same paper they have placed the Ceylon forms frequently called Leptopoma, such as L. conulum, Pfr., L. orophilum, Bens., etc., in a genus "Leptopomatoides, Nevill, 1878." On referring to Nevill's work, we find that the word Leptopomoides—in which they have inserted a syllable—does occur, but in the following sentence: "subgenus doubtful (Leptopomoides)." By this Nevill simply meant, as will, I think, be obvious on an inspection, that they were of unknown subgenus, and near Leptopoma, and further, he did not have the word printed in the same type as the genera and subgenera of his list.

CATAULUS.

The genus Cataulus was founded by Pfeiffer in 1851 4 upon the three following species: Turbo tortuosus, Chemn., Cataulus Templemani, Pfr., and C. Layardi, Gray; the first-mentioned, therefore, may stand as the type. I have endeavoured, by an examination of the series in the British Museum, the specimens preserved at Cambridge from Benson's collection, and specimens collected by Messrs. Collett and Preston, to arrive at an idea of the true specific limits of the species described from Ceylon. I have also to thank Col. Beddome and Mr. E. L. Layard, the former for permitting me to look over his specimens, the latter for the loan of several species. The following list, in which I have given references to the original description and to a figure, is the result of these investigations.

- 1. C. Aureus, Pfr.: Proc. Zool. Soc., 1855, p. 188; Hanley and Theobald, Conch. Ind., pl. cxlvi, fig. 1, non pl. cvi, fig. 9.
 - C. leucocheilus, Ad. & Rve.: Sowerby in Thes. Conch., vol. iii, pl. cclxiv, fig. 14.
 - C. leucostoma, Fow.: Nevill in Enum. Hel. et Pneum. Ceylon. C. leucostoma, Far.: Theobald in Cat. Shells British India, p. 41.

¹ Nachrbl. Deutsch. Malak. Ges., 1897, pp. 119, 120.

² T.c., p. 86.
³ Hand-List Mollusca Ind. Mus., pt. i, p. 273.
⁴ Zeitschr. für Malak., vol. viii, p. 149.

2. C. Austenianus, Benson: Ann. Mag. Nat. Hist., ser. 11, vol. xii (1853), p. 95; Sowerby, Thes. Conch., vol. iii, pl. celxiv, fig. 9.

Hab.—Heneratgodde (Layard).

The figure in the Conch. Ind. (pl. cvi, fig. 5) does not show the position of the notch in the lip quite correctly; it lies more to the left: the figure in the "Thesaurus" is good.

3. C. Blanfordi, Dohrn: Proc. Zool. Soc., 1862, p. 202; Hanley and Theobald, Conch. Ind., pl. cvi, fig. 3.

Hab.—Bollegalle (H. F. Blanford).

Specimens from Watawala (Collett) which I refer to a variety, but which may prove to be new, are more elongated, more striated, and differ in the mouth, which is almost white, and more vertical. I have also a specimen similar to these, but of a yellowish colour, from an unknown locality. Mr. Collett found "on Cacao trees near Matale at 1,000 feet" some specimens which I refer at present to a variety of this species; they are smaller, with rich reddish peristome.

4. C. DECORUS, Benson: Ann. Mag. Nat. Hist., ser. II, vol. xii (1853), p. 96; Hanley & Theobald, Conch. Ind., pl. cvi, fig. 5.

Hab.—Ratnapoora (Layard).

The figure in the Conch. Ind. is a little too broad. The specimens preserved under this name at Cambridge do not agree with Benson's description or measurements, and are not this species. Mr. Layard has kindly lent me one of the original specimens.

- 5. C. EURYTREMA, Pfr.: Proc. Zool. Soc., 1852, p. 145, pl. xiii, fig. 5; Hanley & Theobald, Conch. Ind., pl. cxlvi, fig 3.
- Hab.—Maha Oya, Eastern Province (Mrs. Broun). It is given in the Conch. Ind. as from Travancore on the authority of Col. Beddome, but he informs me that this is an error. The figure in the last-named work hardly shows the notch in the upper outer edge of the lip. Pfeiffer's figure is very good.
- 6. C. немактомия, Pfr.: Proc. Zool. Soc., 1856, р. 391; Hanley and Theobald, Conch. Ind., pl. cvi, fig. 4.
- 7. C. LAYARDI (Gray) Pfr.: Proc. Zool. Soc., 1852, p. 160, pl. xiii, fig. 6; Sowerby, Thes. Conch., vol. iii, pl. cclxiv, fig. 7.

I cannot trace the reference to this species in Proc. Zool. Soc., 1851, given by Pfeiffer. Further, Baird in 1850 (Cat. Cycloph. Brit. Mus., p. 31) published the name, though without description; and his specimen proves, on examination, to be *C. marginatus*, Pfr. The figure in the Conch. Ind. on pl. cvi, fig. 8, represents, I think, a large *C. marginatus*, and fig. 9 (named *C. aureus*) may be a large elongate *C. Layardi*.

8. C. MARGINATUS, Pfr.: Proc. Zool. Soc., 1853, p. 52; Hanley and Theobald, Conch. Ind., pl. exlv, fig. 6.

Hab.—Bandarawella (Mrs. Broun).

9. C. Nietneri, G. & H. Nevill: Journ. As. Soc. Bengal, vol. xxxix (1871), p. 7, pl. i, fig. 7.

Hab.—Ambagamuwa (Collett).

Mr. Collett also found at Balangoda an interesting form, which is more elongated and crenulated, and has deeper sutures. The figure in the Conch. Ind. (pl. cxlvi, fig. 4) does not resemble this shell.

- 10. C. PYRAMIDATUS, Pfr.: Proc. Zool. Soc., 1852, p. 145, pl. xiii, fig. 4; Hanley & Theobald, Conch. Ind., pl. cxlvi, fig. 5.
- 11. C. Templemani, Pfr.: Proc. Zool. Soc., 1852, p. 158; Hanley and Theobald, Conch. Ind., pl. evi, fig. 1.

Hab.—Uda Pussellawa and Kurunegalla (Preston); Maturata (Simon).

Mr. Preston found a specimen with a pure white lip at Kurunegalla.

- 12. C. Thwaitesh, Pfr.: Proc. Zool. Soc., 1852, p. 147; Hanley and Theobald, Conch. Ind., pl. evi, fig. 6.
 - ? C. Cumingi, Pfr.: Proc. Zool. Soc., 1856, p. 399; Novit. Conch., vol. i, p. 91, pl. xxv, figs. 16, 17.

C. gregarius, Nevill (MS.): Enum. Hel. et Pneum. Ceylon, p. 5 (nom. nud.).

C. duplicatus, Pfr.: Proc. Zool. Soc., 1854, p. 303.

Hab.—Balangoda (Collett).

The specimens of *C. Cumingi* now in the British Museum agree moderately well with Pfeiffer's description, but do not seem to tally with the figure he gives in the "Novitates." I have seen a specimen of Nevill's manuscript species, said to have been named by him, and I think it is only a squat form of *C. Thwaitesii*. I consider *C. duplicatus* to be only a variety. In conclusion, I may remark that the figures of the Conch. Ind. have chiefly been quoted here, since this work is the most accessible to students, and that, in the case of localities not previously recorded, I have myself verified the specimens.

The following two forms appear to be undescribed:-

13. Cataulus Nevilli, n.sp. Pl. V, Fig. 16.

Testa anguste et profunde rimata, pyramidata, solidula, eleganter costulato - striata, brunnea, spira elevata, apice obtusulo; sutura impressa; anfr. 8, convexi, ultimus non attenuatus; carina umbilicalis valida, compressa; periomphalum mediocre, costulato - striatum; apertura subcircularis; peristoma rubro - castaneum, continuum, incrassatum et valde reflexum, basi productum, canali mediocri perforatum. Alt. 23.6, diam. max. 9.5 mm.

Hab.—Ambepusse (O. Collett); Kegalla (H. B. Preston).

The nearest ally to this species appears to be *C. Austenianus*, Benson; the present one is more elongate, and has the whorls more convex, the lip is of a different colour and is attached to the shell at a different angle, while the notch is more vertical and not so much to the left as in *C. Austenianus*. A fair series of specimens has been examined, and they appear to be constant in character. I have named it after Hugh Nevill, who gave such special attention to the Ceylon fauna.

14. CATAULUS COLLETTI, n.sp. Pl. V, Fig. 15.

Testa breviter et profunde rimata, elongata-pyramidalis, solida, substriata, castanea; spira elongata, apice obtusulo; sutura submarginata; anfr. 8-8½, plano-convexi, ultimus parum attenuatus; carina umbilicalis valida, compressa; periomphalum latum, costulatostriatum; apertura subcircularis; peristoma incrassatum et reflexum, basi productum, canali mediocri perforatum. Alt. 23, diam. 8·2 mm.

Hab.—On stems of Kitool Palm, Matale, at 1,200 feet (O. Collett). A species belonging to the same group as the last, but it is narrower, the whorls are flatter, the striæ almost obsolete, the base of the lip projects a little forward, and the notch lies a shade more to the right.

15. DIPLOMMATINA (NICIDA) CATATHYMIA, n.sp. Pl. V, Fig. 9.

Testa parva, dextrorsa, rimata, cylindrica, flavido-hyalina, spira sub-cylindrica, apice obtusulo; sutura bene impressa; anfr. 6½, valde convexi, regulariter crescentes, primi læves, reliqui (sub lente) regulariter obsolete spiraliter lirati, ultimus liris quinque (?) ornatus; apertura circularis, peristomate leviter incrassatulo et reflexo, albido. Alt. 2, diam. 1 mm.

Hab.—Uda Pussellawa (H. B. Preston).

This pretty little shell, specimens of which I noted previously as possibly belonging to two species, appears to be variable in relative proportions of height and breadth. It is very cylindrical, with an exceedingly deeply-cut suture, and delicate spiral sculpture. Mr. Preston found a single sinistral specimen. I may add that Diplommatina Pedronis, Bedd., has been found by Mr. Collett.

16. CYATHOPOMA LEPTOMITA, n.sp. Pl. V, Figs. 8, 8a.

Testa elevata, conoidea, late et perspective umbilicata, cineracea, brunneo-ochraceo eleganter picta, apice protracto, acutulo; anfr. 5, primi læves, reliqui carinati, ultimus 10 carinis approx. ornatus, undique arctissime et tenuissime lirati, liris delicatissimis, fimbriatis; liris conspicuis 6 approx. in umbilico; sutura bene impressa; apertura ovato-circularis, labro tenui; operculum multispirale, concavum. Alt. 2·5, lat. 3 mm.

Hab — Ambagamuwa (O. Collett).

This interesting little shell, which is the Jerdonia Ceylanica of

¹ Proc. Malac. Soc., vol. ii, p. 237.

Mr. Collett's paper, may readily be separated from that species by its well-marked though closely-set lines crossing the carinations. It appears to belong to the group of *C. Deccanense*, W. Blfd.

17. MICROCYSTINA LITA, n.sp. Pl. V, Figs. 10, 11.

Testa subperforata, globose-conica, tenuis, polita, nitidissima; sutura bene impressa; anfr. 5, lente accrescentes, brunnei, primus pallidior, fere lævis, reliqui microscopice undique dense spiraliter striati et lineis incrementibus remotis sculpti, ultimus rotundatus; apertura lunata, margine columellari subreflexo, incrassatulo. Alt. 3.4, lat. 2 mm.

Hab.—Ambagamuwa (Collett).

Lieut.-Col. Godwin-Austen has kindly pointed out to me that the microscopic sculpture of this shell is similar to that of the *Microcystina* of the Andaman Islands, and I have thought it best to place it in that genus; though the strongly-marked notch of that group is not present, still the columella shows a trace of it. Under a microscope faint traces of spiral sculpture are also seen on the *Helix perfucata* of Benson.

18. Kaliella delectabilis, n.sp. Pl. V, Fig. 7.

Testa ovato-conoidea, anguste sed perspective umbilicata, cornea, nitida; anfr. 6, convexi, sub lente microscopice transversim striati, ultimus ad peripheriam carinatus, subtus inflatus; apice lævi, sutura impressa; apertura semilunata, peristomate columellari reflexo. Alt. 3, diam. max. 2.8 mm.

Hab.—Ambagamuwa, Ceylon (Collett).

An interesting little form, easily separated from K. salicensis, G.-Austen, by the greater inflation of the whorls and by its sculpture. I have a specimen, which I take to be the young of this species, collected at Uda Pussellawa by Mr. Preston.

19. SITALA PYRAMIDALIS, n.sp. Pl. V, Figs. 19, 20.

Testa parva, anguste sed perspective umbilicata, depresso-pyramidalis, pallide cornea, periostraco leviter induta, apice obtusiusculo; anfr. 7, plano-convexiusculi, primi læves, reliqui costulis spiralibus sculpti, ultimus 4–6 costulis, ad peripheriam carinatus, basi convexus, radiatim striatulus, nitidulus; sutura impressa; apertura angulato-lunata; peristoma simplex, rectum. Alt. 5, diam. max. 3·25 mm.

Hab.—Lower Ambagamuwa, Ceylon (Collett).

An interesting little species, depressed-conical in form, with fine revolving raised lines. They appear to vary in number, ranging on the last whorl from four to six, and gradually fade out on the upper whorls.

20. SITALA OPERIENS, n.sp. Pl. V, Fig. 12.

Testa pygmæa, elevato-conoidea, anguste perforata, brunneo-cornea, periostraco brunneo induta, apice acutiusculo; anfr. 6, sub periostraco

¹ Journ. R. Asiatic Soc. (Ceylon Branch), vol. xv.

microscopice pluribus lineis spiralibus sculpti, ultimus ad peripheriam carinatus, basi sub-convexus, radiatim striatus, nitidulus; sutura subimpressa, apertura ovato-lunata; peristoma simplex, rectum, margine columellari ad perforationem leviter reflexum. Alt. 2.5, diam. max. 2.5 mm.

Hab.—Uda Pussellawa, Ceylon (H. B. Preston).

The sculpture is not visible until the periostracum has been rubbed off, and at first I was under the impression that the species was smooth.

21. Euplecta præeminens, n.sp. Pl. V, Figs. 5, 6.

Testa subperforata, depresso-conoidea, tenuiuscula, superne confertim costulata, lineis impressis spiralibus regulariter granulata, corneobrunnea, versus apicem lineis spiralibus validioribus quam costulis sculpta; spira concava, apice elevato, acuto; anfr. 6-6½, planoconvexi, mediocriter accrescentes, ultimus non descendens, acute carinatus, basi convexus, radiatim striatulus, nitidus; apertura obliqua, angulato-lunaris; peristoma simplex, rectum, margine columellari ad perforationem subreflexo. Alt. 15, diam. max. 28·5 mm.

Hab.—Watawala, Ceylon (Collett).

This is the *Helix acuducta*, Benson, of Mr. Collett, in his interesting paper on the land-shells of Ambagamuwa. From an examination of Benson's specimen, preserved at Cambridge, which agrees fairly well with his original description, I arrive at the following differences: *H. acuducta* is slightly lighter in colour, *does not possess the drawn-out apex*, the whorls do not increase so rapidly, the sculpture is not so strong, the protoconch is nearly smooth, and only shows the spiral lines very indistinctly. To sum up, the true *H. acuducta* is a shell in form, etc., rather of the group of *E. Isabellina*, Pfr., and *E. Colletti*, Sykes.

The shell figured in the Conch. Ind. (pl. iv, fig. 5) is very probably the present species. Another specimen, measured in a similar manner, gives alt. 14.5, diam. max. 25 mm.; it is slightly darker, and, the spiral lines being weaker, does not appear so granular: this smaller shell is the one figured, the larger specimen having met with an

accident.

Dr. Jousseaume in 1894 ² described from Ceylon two species which he called *Plectopylis Eugenii* and *P. Lamcabensis*; he makes no mention of any armature or teeth, and probably they really belong to *Sitala* or *Kaliella*; indeed, the former, judging from figures and descriptions, may be *Kaliella Leithiana*, Godwin-Austen, ³ a species Dr. Jousseaume does not mention in his list.

Mr. Collett found in Ambagamuwa typical examples of P. clathratula, and also the following interesting form.

³ Moll. India, vol. i, p. 71, pl. xvi, fig. 6.

Journ. Roy. As. Soc. (Ceylon Branch), vol. xv.
 Mem. Soc. Zool. France, vol. vii, pp. 277, 278.

22. Plectopylis (Sykesia) 1 clathratula, var. compressa, n.var. Pl. V, Figs. 13, 14.

Shell narrower and more elevated than the type, spire more convex; umbilicus narrower, the last whorl being more convex at the base, and the descent into the umbilicus more abrupt; sculpture much as in the type, but the lower of the two conspicuous keels lies more in the suture; armature similar to the type, but the palatal denticles are more regular and horizontal. Alt. 2.4, diam. 5 mm.

Hab.—Ambagamuwa (O. Collett).

At first sight the raised ribs appear to be absent, but traces appear under a microscope; this may be due to the condition of the specimens. A typical specimen measures alt. 2.7, diam. 6.1 mm. A glance at the figure will show the difference in form. I have to thank Mr. Gude for kindly examining this species and the next.

23. Plectopylis (Sykesia) caliginosa, n.sp. Pl. V, Figs. 21, 22.

Testa mediocriter umbilicata, lenticularis, acute carinata, superne costulis obscuris remotis ornata, parum nitens, corneo-brunnea, apice magno, obtuso; sutura bene impressa, anfr. 5, plano-convexi, lente accrescentes, ultimus basi inflatus, radiato-striatus; apertura verticalis, angusta, angulato-lunaris; peristoma simplex, acutum; plicæ et dentes sicut (?) in P. clathratula, sed dentes palatales pauci. Alt. 2.9, diam. 6 mm.

Hab.—Ambagamuwa (O. Collett).

Shell slightly more elevated than *P. clathratula*, whorls a little flatter, base more inflated, the umbilicus being little more than half the size, colour more brown; the spiral liræ are absent, save for a faint trace above the suture of a single one, and the costæ almost obsolete; the armature appears to be very similar, save that the palatal denticles are only three or four in number.

24. Thysanota (?) Eumita, n.sp. Pl. V, Figs. 17, 18.

Testa depresso-conica, anguste umbilicata, corneo-virescens, depresso-trochiformis, apice obtusulo; sutura impressa; anfr. 5-5½, plano-convexi, linea unica spiralis supersuturalis muniti, transversim subtiliter striati, sub lente undique spiraliter striati, ultimus carinatus, carina suturaque pilis elongatis ciliatis ornata, basi subinflatus; apertura angulato-lunaris; peristoma simplex, rectum. Alt. 2, diam. 4·2 mm.

Hab.—Ambagamuwa (O. Collett); Badulla (O. Collett), a variety. A very interesting little species, of which I have seen a good number of examples. It recalls the young of Thysanota Guerini, Pfr., but is more trochiform and not so convex. It appeared possible that it might be the young of Plectopylis clathratula, or an allied species;

¹ Mr. Gude recently proposed the name Austenia (Science Gossip, vol. iii, pp. 300, 332) for a new section of Plectopylis, having P. clathratula, Pfr., as its type, but finding that name preoccupied, he substituted Sykesia for it.

but the protoconch in the present form is spirally, and not radiately, striate, as in *P. clathratula*.

25. GLESSULA COLLETTÆ, n.sp. Pl. V, Fig. 1.

Testa elongata, tenuis, lævigata, obscure longitudinaliter striata, nitida, brunnea vel fusco-cornea, apice obtusiusculo; sutura impressa; anfr. $6-6\frac{1}{2}$, convexiusculi, ultimus $\frac{1}{2}$ altitudinis testæ æquans; apertura fere verticalis, lunato-ovalis, margine columellari calloso, pallidiore, oblique truncato. Alt. 8, lat. 2·8 mm.

Hab.—Ambagamuwa (coll. Mrs. Collett).

Allied to G. Sattaraensis, H. Ad. (= G. fusca, H. Ad., nom. præocc.), which is recorded from "Saharumpore, Ceylon," in the Conch. Ind.; but I do not know on whose authority. It was described and figured from "Sattara, Bombay," by Adams, and it may be remarked that the figure in the Conch. Ind. (pl. lxxviii, fig. 4) does not quite resemble that given by Adams (Proc. Zool. Soc., 1868, pl. iv, fig. 10). I expect that the G. Sattaraensis of Dr. Jousseaume, cited from Nuwara-Eliya, is the present species, which is more elongate and slender than the true G. Sattaraensis.

26. Opeas Prestoni, n.sp. Pl. V, Fig. 4.

T. subperforata, elongato-cylindrica, translucida, tenuis, cornea vel cereo-cornea, apice obtusiusculo; anfr. $8\frac{1}{2}$, plano-convexi, longitudinaliter lineis incrementibus striati, ultimus $\frac{9}{20}$ longitudinis subæquans, sutura bene impressa, apertura elongato-ovata; peristoma simplex, acutum, margine columellari ad basim breviter reflexo, perforationem fere tegente. Alt. 11, diam. 3·25 mm.; alt. ap. 3, lat. ap. 1·8 mm.

Hab.—Uda Pussellawa (Preston); also O. Collett, exact locality not

stated

Knowing how widely the species of this group are scattered, I have, with the kind help of Mr. Smith, been through the British Museum collection, but cannot quite identify my specimens with any known species. The apex is much more obtuse and the earlier whorls are broader than O. gracilis, and the shell generally is more cylindrical and not so needle-shaped: it appears to be variable in colour. I have given the dimensions of an average specimen; one found by Mr. Preston measures alt. 14, diam. 4 mm.

Till recently the only true *Opeas* recorded from Ceylon was *O. gracilis*, Hutton; this species was found by Mr. Preston at Galle, Colombo, and Trincomalie. In 1894 Dr. Jousseaume described *O. Mariæ*; I have not had the advantage of examining a specimen, but from the description and figure it seems suspiciously near to

O. gracilis.

27. Cyclophorus (Scabrinus) Brounæ, n.sp. Pl. V, Figs. 2, 3.

Testa late umbilicata, depresse conica, periostraco brunneo-fusco, scabro ornata, lineis elevatis spiralibus et costis remotis notata, in regione umbilicari lævior; spira subelevata, apice exserto, plicatulo,

obtuso; sutura profunda; anfr. $4\frac{1}{2}$, convexi, ultimus versus aperturam parum descendens; apertura fere circularis, duplex, internum continuum, externum leviter expansum. Alt. 5·5, diam. max. 10·5 mm.

Hab.—Nuwara-Eliya (Mrs. Broun).

A specimen of this very interesting form was collected by Mrs. Broun, and given by her to Mr. Preston, who has placed it in my hands for description. It is noteworthy for its thick, rough periostracum, which forms distant radiating ridges, in addition to the spiral striation, common to so many of these forms. No other species described from Ceylon appears to really approach it.

EXPLANATION OF PLATE V.

Fig. 1. Glessula Collettæ, n.sp.

,, 2, 3. Cyclophorus (Scabrinus) Brounæ, n.sp.

,, 4. Opeas Prestoni, n.sp.

,, 5, 6. Euplecta præeminens, n.sp.

,, 7. Kaliella delectabilis, n.sp. ,, 8. Cyathopoma leptomita, n.sp.

, 9. Diplommatina (Nicida) catathymia, n.sp.

,, 10, 11. Microcystina lita, n.sp. ,, 12. Sitala operiens, n.sp.

,, 13, 14. Plectopylis (Sykesia) clathratula, v. compressa, n.var.

,, 15. Cataulus Colletti, n.sp. ,, 16. — Nevilli, n.sp.

,, 17, 18. Thysanota (?) eumita, n.sp. 19, 20. Sitala pyramidalis, n.sp.

,, 21, 22. Plectopylis (Sykesia) caliginosa, n.sp.



Sykes, E. R. 1898. "LIST OF THE SPECIES OF CATAUZUS FOUND IN CEYLON, WITH DESCRIPTIONS OF SOME NEW LAND-SHELLS FROM THAT ISLAND." *Proceedings of the Malacological Society of London* 3, 65–74.

View This Item Online: https://www.biodiversitylibrary.org/item/100098

Permalink: https://www.biodiversitylibrary.org/partpdf/202674

Holding Institution

Field Museum of Natural History Library

Sponsored by

Smithsonian

Copyright & Reuse

Copyright Status: Public domain. The BHL considers that this work is no longer under copyright protection.

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at https://www.biodiversitylibrary.org.