# VI DESCRIPTION OF NEW LAND AND MARINE SHELLS FROM CEYLON AND S INDIA

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Of the specimens described in the present paper, many were collected by the author in the years 1895—7 in the province of Uva, Central Ceylon, while others, including all the marine species, were obtained from the collection of the late Mr. Hugh Nevill, when that collection was dispersed at auction some few years ago in London.

### 1. Euplecta foveolata, sp. nov.

Shell broadly turbinate, sharply carinate, rimate, light yellowish brown, glossy, sculptured above with very indistinct spiral striæ and fine closely set arcuate riblets, base of shell polished, smooth, marked only with lines of growth; whorls  $5\frac{1}{2}$ , rapidly increasing in size; sutures well-impressed; columella reflexed, thus partly concealing the narrow perforation; aperture obliquely sublunate; peristome thin.

Altitude	10.2 mm
Diam., major	16 ,,
Aperture, alt.	6,,
,, diam.	7.25 ,,
Habitat—S India	

A very graceful and beautiful species which, unlike most of the members of this group, shows no trace of granulation in the sculpture.

### 2. Euplecta lankaensis, sp. nov.

Shell thin, slightly polished, pale yellowish white, conoidal, slightly carinate; whorls  $6\frac{1}{2}$ , very flat, sculptured with fine transverse lines of growth crossed by very indistinct spiral striæ, presenting a very fine decussate appearance; sutures not deeply impressed; base of shell somewhat convex; umbilicus very narrow and almost concealed by the reflexion of the columella; columella descending obliquely; peristome acute; aperture broadly lunate.

Altitude	7 mm.
Diam., major	8.25 ,,
Aperture, alt.	5.5
Habitat—Matale, Ceylon.	

Allied to Euplecta convexiuscula, Pfr., but not marked with such coarse lines of growth; the present species is also finely decussate and more strongly carinate; moreover, the spire is considerably higher and the whorls are much flatter.

### 3. Euplecta neglecta, sp. nov.

Shell conoidal, thin, pale brownish yellow; whorls 6, sculptured with somewhat coarse, oblique, transverse striæ crossed by spiral striæ presenting in places a faintly decussate appearance, the last whorl acutely carinate at the periphery, the carina being of a paler colour than the rest of the shell; sutures impressed; base of shell very convex, smooth except for lines of growth; umbilicus very narrow and partly covered by the reflexed columella; columella descending vertically; peristome acute; aperture broadly lunate.

Altitude	10	mm.
Diam., major	14.2	,,
Aperture, alt.	5.2	
,, diam.	6.2	,,
Habitat—Uda Pussellawa,	Ceylon.	

The present species may be compared with  $E.\ emilliana$ , Pfr.; it differs, however, from that species mainly in the following characters: its more conoidal shape and inflated base, its broader aperture and its much less markedly decussate sculpture.

It may be of interest to mention here that specimens of *Euplecta lævis*, Blanford, occurred, though sparingly, with E. neglecta, and I take this opportunity of recording the fact, as in his description of E. lævis the late Dr. W T. Blanford was unable to give an exact locality for his species.

## 4. Microcystis edithæ, sp. nov.

Shell depressedly turbinate, narrowly perforate, thin, semi-hyaline, polished, fulvous-brown; whorls 4, minutely, spirally striate, the striæ being especially noticeable on the second whorl, the last two whorls marked with lines of growth; base of shell sculptured with fine, wavy striæ presenting under the microscope an almost finely granular appearance; sutures almost channelled; columella reflexed over and partly concealing the umbilicus; peristome acute; aperture obliquely lunate.

Altitude 1.25 mm. Diam., major 2.5 ,, Habitat—Uda Pussellawa, Ceylon.

A pretty little hyaline form whose nearest ally appears to be *M. thwaitesi*, Pfr.; from this it is, however, easily distinguishable by its much smaller size and darker colour and by its having fewer whorls than that species.

<sup>1</sup> Proc. Malac. Soc. London, vol. iv, pp. 241-253.

# 5. Microcystis thwaitesi, Pfr., var. depressa, var. nov.

Much more depressed than the typical form, the spire being scarcely raised at all, in other respects it appears to be normal.

Habitat-Uda Pussellawa, Ceylon.

## 6. Microcystis winifredæ, sp. nov.

Shell depressed, narrowly perforate, thin, polished, shining, yellowish horn colour; whorls 3, sculptured throughout with very minute, spiral striæ; sutures impressed; umbilicus deep, very narrow, partly concealed by the reflexed columella; peristome simple; aperture broadly lunate.

Altitude	4.75	mm.
Diam.; major	8.5	,,
Aperture, alt.	4.5	,,
,, diam.	3.2	,,
Habitaț—Uda Pussellawa, Ceylon.		

### 7. Thysanota elegans, sp. nov.

Shell trochiform, rimate, vitreous, yellowish white; whorls 6, the first two rounded, spirally striate, the remainder sculptured with fine spiral lines crossed by coarser, transverse, arcuate striæ and bearing a strong, peripheral, hairy liration, the last whorl sharply carinate at the base; base of shell spirally striate only; sutures deeply impressed; umbilicus very narrow; peristome simple; aperture narrow, sublunate.

Altitude	1.75	mm.
Diam., major	1.2	,,
Habitat—Uda Pussellawa, Ceylo	n.	

Differing from Thysanota hispida, Sykes, in its much smaller size and more graceful form; both the spiral and arcuate transverse striæ appear to be a character which are also absent in T hispida.

# 8. Glessula sinhila, sp. nov.

Shell moderately thin, polished, dark yellowish horn colour, obtusely lanceolate; whorls 7½, marked with very faint lines of growth only; sutures impressed; columella descending in a very oblique curve; peristome simple, bent slightly inwards above; aperture inversely, elongately auriform.

Altitude	21.75 mm.
Diam., major	9 ,,
Aperture, alt.	7.75 ,,
,, diam.	4 ,,
Habitat—Ceylon.	

<sup>1</sup> Proc. Malac. Soc. London, vol. iii, p. 160.

Allied to G. inornata, Pfr., but easily distinguished from that species by its much more slender form.

# 9. Mangilia (Daphnella) angusticincta, sp. nov.

Shell fusiform, yellowish white, encircled by a suprasutural, thin, chocolate-coloured band which continues on the body-whorl below the periphery; whorls 6, strongly carinate above, sculptured with transverse costæ and fine spiral striæ, the last whorl bearing a somewhat coarse spiral liration towards the base; sutures scarcely impressed; peristome varicosely thickened; columella straight above, excavated below where it is stained reddish brown; aperture elongate.

Altitude	7.5 mm.
Diam., major	3 ,,
Aperture, alt.	2.5 ,,
,, diam.	.5 ,,
Habitat—Ceylon.	- //

Allied to D. bella, Pease  $^1$  ( = Mangilia interrupta, Rve.), from which it differs in its narrower form, much more angled whorls and single narrow, deep, chocolate band; the costæ in the present species are also much stronger and the aperture is narrower; moreover, in D. bella the columella is not stained and is not so much excavated at the base as in M. angusticincta.

# 10—11. Chegina purpureo-cincta, sp. nov.

Shell ovate, rather broad in proportion to its height, solid, coarsely tuberculate, the tubercles arranged in spiral rows, and sculptured throughout with spiral grooves and ridges, white, encircled with an infrasutural band of purplish brown, the last whorl painted with two other bands of the same colour between the rows of tubercles; whorls 5; sutures irregular, lightly impressed; peristome varicosely thickened, bearing five small denticles on the lower portion; columella almost straight and tinged with pale mauve, bearing three small denticles near its base, of which the middle one is the largest; canal very short; aperture ovate; interior of shell painted with two spiral bands of purplish brown, the intervening spaces being discoloured with a very pale shade of the same colour; operculum horny, with a central nucleus, purplish brown edged with a pale horn-coloured rim.

Altitude	8.5	mm.
Diam., major	5.5	,,
Aperture, alt.	3	,,
,, diam.	I	<b>)</b> :
Habitat—Ceylon.		

<sup>1</sup> Proc. Zool. Soc. London, 1860, p. 147.

### 12-13. Nassa shawi, sp. nov.

Shell solid, ovate, yellowish brown; spire acuminate; whorls 6½, rapidly increasing in size, sculptured with transverse costæ and somewhat coarse, wavy, spiral grooves which become obsolete at the periphery of the last whorl; sutures crenulate; columella finely denticulate at base, curved and extending upwards into a callus which reaches the lip above; peristome varicosely thickened behind, thin and serrated at the edge; denticulate just within the aperture; aperture sub-ovate; canal short.

Altitude	8 mm.
Diam., major	4 <sup>-</sup> 75 ,,
Aperture, alt.	2 ,,
diam.	1.25
Habitat—Cevlon.	0 ,,

### 14. Pentudactylus ceylonicum, sp. nov.

Shell fusiform, moderately solid, pale flesh colour; whorls  $6\frac{1}{2}$ , sharply angled below the sutures, scabrous, sculptured with coarse transverse varices and reddish brown tuberculous ridges, the interstices occupied by spiral ridges of a finer character; sutures scarcely impressed, irregular; columella straight, bearing three very indistinct plaits towards the base and diffused into a callus which joins the lip above; outer lip serrated, bearing six plait-like denticles which run some little distance into the mouth of the shell; aperture ovate; canal rather broad, short, very slightly curved.

Altitude	19.75 mm
Diam., major	ΙΟ ,,
Aperture, alt.	7 ,,
, diam.	2.75 ,,
,, diam. Habitat—Ceylon.	, ,

### 15. Leptopoma taprobanensis, sp. nov.

Shell pyramidal, white, painted with broad reddish brown flame markings; whorls  $4\frac{1}{2}$ , convex, the apical whorls uniformly reddish brown, smooth, the remainder sculptured throughout with spiral liræ; sutures deeply impressed; base of shell convex; umbilicus moderately broad; peristome continuous, single, reflexed, white; aperture circular.

Altitude	6·5 mm.
Diam., major	6.25 ,,
Aperture, alt.	2.5 ,,
diam.	2.5 ,,
Habitat—Ceylon.	

The spiral liræ of this species readily separate it from any other hitherto described form from Ceylon.

# 16. Cyclophorus liratula, sp. nov.

Shell subdiscoidal, moderately solid, covered with a brown periostracum; spire raised; whorls 3½, somewhat rapidly increasing in size, painted with broad, regular, brownish purple flame markings, rather coarsely, spirally lirate and very finely transversely striate; umbilicus wide and deep; peristome continuous, double; aperture nearly circular; interior of shell bearing a bluish white callus for a distance of about four millimetres from the aperture.

Altitude 6 mm.
Diam., major 11 ,,
Aperture, alt. 4 ,,
diam. 3.5 ,,
Habitat—Ceylon.

17-18. Cyclophorus (Theobaldia) liliputiana, sp. nov.

Shell small, suborbicular, depressed, white painted with a broad, reddish brown, subperipheral band, both above and below which occur zigzag flame markings of the same colour; whorls 4½; spire scarcely raised; sutures deeply impressed; umbilicus wide and shallow; peristome white, continuous, double, slightly reflexed; aperture circular.

Altitude	4 mm.
Diam., major	10 ,,
,, minor	7.75 ,,
Aperture, alt.	3.25 ,,
,, diam.	3.25 ,,
HabitatCeylon.	

Distinguished from any other Sinhalese member of the group by its extremely small size, vivid and well-marked painting and generally compact appearance.

# 19. Cyathopoma ogdeniana, sp. nov.

Shell turbinate, bearing traces of having been covered with a brown periostracum, sculptured above with distant transverse and spiral ridges, the former being absent on the base of the shell, in which region the latter are more numerous and less distant; whorls  $4\frac{1}{2}$ , somewhat inflated; sutures deeply impressed; umbilicus wide and deep; peristome continuous, thickened, slightly reflexed and double throughout; aperture circular.

Altitude 2.5 mm. Diam., major 2,, Habitat—Uda Pussellawa, Ceylon.

In general outline and sculpture this species may be compared with C. serendibense, Preston  $^1$ ; the whorls of the present form are,

<sup>1</sup> Proc. Malac. Soc. London, vol. v, pt. 5, 1903, p. 340.

however, more tumid, the umbilicus is wider and the peristome is throughout thickened, reflexed and double, which is not the case with C. serendibense.

I have much pleasure in associating with this species the name of my friend Mr. J. Armitage Ogden, of Kirklees Estate, Uda Pussellawa, on which estate it was collected.

### 20. Cyathopoma perconoideum, sp. nov.

Shell elongately conic, white, bearing traces of having been covered with a light yellowish brown periostracum; whorls 6, convex, sculptured with several spiral liræ; sutures impressed; umbilicus very narrow and partly concealed by the outward expansion of the peristome; peristome continuous, reflexed in the umbilical region and at the base, simple at all other points; aperture almost circular.

Altitude 2 mm.
Diam. 75 ,,
Habitat—Bandarawella, Province of Uva, Ceylon.

Allied to Cyathopoma conoideum, Sykes, but more elongately conoid in form; the spiral liræ are also much more numerous than in that species. The umbilicus is narrower, being reduced in the present form to a mere chink; the aperture, moreover, is more nearly circular than in C. conoideum.

### 21. Cyathopoma uvaense, sp. nov.

Shell conoidal, greyish white, covered with a smooth chocolate-coloured periostracum, sculptured with fine spiral somewhat distant liræ; whorls  $4\frac{1}{2}$ , shouldered above, moderately convex; sutures impressed; umbilicus wide and deep; peristome almost continuous, white, very slightly reflexed; aperture subcircular.

Altitude . 3 mm.

Diam., major 3.5 ,,

Aperture, alt. I ,,

diam. I ,,

Habitat—Bandarawella, Province of Uva, Ceylon.

### 22. Pecten helleri, sp. nov.

Shell nearly equivalve, equilateral, subtrigonal very flat, creamy white, painted with broad, irregular, transverse, blood-red bands and ornamented on both valves with ten-grooved, rather broad and flattened, radiate ribs; the surface of both valves is also sculptured with closely set, fine, silky, concentric striæ; auriculæ nearly equal, radiately grooved, those of the left valve stained

<sup>1</sup> Proc. Malac. Soc. London, vol. iii, p. 159.

with rusty red while those of the right valve; are almost white: umboes small, acute.

Long. 20.25 mm. Lat. 19 5 ,, Habitat—Ceylon.

[N.B.—The plate illustrating this paper will be issued later.]