

# THE ANNALS

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LII.—*On the Land-Shells of the Natuna Islands.*  
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[Plate XVI.]

THE British Museum has recently received a most interesting series of land-shells collected by Mr. A. Everett at the Natuna Islands, situated to the north-west of Borneo. Not a single specimen from these islands has hitherto been obtained for the National Collection, and only one indigenous species, *Everettia cinnamomea*, has previously been recorded. The present collection consists of thirty-one species, eighteen of which apparently are undescribed, and the remainder are known inhabitants either of Borneo or the Malay Peninsula.

The Natuna fauna, so far as it can be estimated from the material at hand, appears to exhibit an equally close relationship with that of either of these localities. Four species are common to the Malay Peninsula and the Natunas, seven occur in the latter and Borneo, and two are met with in all three localities. The species occurring at Sirhassen do not, as it might be expected they would, from its proximity to Borneo, exhibit more of a Bornean than a Malayan facies, for of the sixteen species known from Sirhassen five are met with in Borneo and five in the Malay Peninsula. With regard to the species from Bunguran or Great Natuna, six of the twenty-six forms which occur on that island are also Malayan and seven are Bornean.

1. *Microcystis bunguranensis*. (Pl. XVI. fig. 1.)

Testa minuta, obtuse conoidea, angustissime perforata, polita, saturate olivaceo-fusca, tenuis, pellucida; spira breviter obtuse conica; anfractus  $5\frac{1}{2}$ , lente crescentes, leviter striatuli, ultimus ad peripheriam rotundatus, haud descendens; apertura parva, lunata; peristoma tenue, simplex, margine columellari anguste reflexo. Diam. 2.5 millim., alt. 2; apertura 1 lata.

*Hab.* Bunguran.

A highly polished species of a dark olive-brown colour.

2. *Everettia cinnamomea*, Eydoux.

*Helix cinnamomea* (Valenciennes, MS.), Eydoux, Mag. de Zool. 1838, pl. cxvi. figs. 1-1 b; Pfeiffer, Mon. Hel. i. p. 54, iv. p. 42; Tryon, Man. Conch. ser. 2, vol. ii. p. 89, pl. xxix. figs. 46-48 (copied from Eydoux), as *Nanina*.

*Hab.* Natuna Islands (*Eydoux and Strubell in litt.*); Penang (*Pfr.*); Bunguran and Sirhassen (*Everett*).

The shell figured by Reeve (Conch. Icon. vol. vii. fig. 442) does not belong to this species, being perfectly distinct in form. The figure given by Eydoux is very good as regards form, but the colour in the copy of the work at hand is rather too red.

The examples from Sirhassen are not so large as those from Bunguran, and they have half a whorl less; but whether they are full-grown or not I am unable to say. They also differ in having the under surface of a more or less greenish tint.

3. *Nanina (Hemiplecta) Humphreysiana*, Lea.

*Hab.* Bunguran and Sirhassen (*Everett*); Natuna Islands (*Strubell in litt.*); Malacca (*auct.*).

There are two varieties of this species occurring at Sirhassen, one fairly well represented by the figure in the Conch. Cab. ed. 2, pl. xxxi. figs. 3, 5, of *Helix*. This form also occurs at Bunguran. The dark zone beneath the pale periphery is, however, generally more defined, and the upper surface is sometimes darker than the specimen figured. The second variety is entirely white, but covered with a light olive-yellow epidermis. It may be named var. *pallida*.

4. *Dyakia hugonis*, Pfeiffer.

*Dyakia hugonis*, Pfeiffer, Godwin-Austen, P. Z. S. 1891, p. 29, pl. v. figs. 5-5 b.

*Hab.* Bunguran (*Everett*); N. Borneo and Labuan (*auct.*).

Only two small examples, 24 millim. in diameter, were collected by Mr. Everett, and both are dextral.

5. *Trochonanina affinis*. (Pl. XVI. figs. 2, 2 a.)

Testa imperforata, conica, acute carinata, tenuis, fusco-cornea, subpellucida, supra vix nitida, infra polita; spira leviter concava, conica, ad apicem rotundata; anfractus 7, lente crescentes, primi tres vel quatuor lævigati, convexiusculi, cæteri minus convexi, oblique arcuatim striati, lirisque spiralibus paucis tenuibus supra suturam fusciscentem ornati, ultimus inferne convexiusculus, infra carinam excavatus, concentrice obsolete substriatus, haud descendens; apertura obliqua, angulatim lunata; peristoma tenuissimum, margine columellari ad insertionem incrassato, albo.

Diam. maj. 16 millim., min. 15, alt. 9; apertura 8 lata, 2·5 alta.

*Hab.* Bunguran and Sirhassen.

This species is closely allied to *T. conicoides* from Borneo. It differs, however, in the whorls increasing more slowly, so that the last is but very little broader than the penultimate, whereas in *T. conicoides* there is considerable difference. The body-whorl in the present species is more convex beneath, the aperture is of a slightly different form, and the few spiral liræ are coarser than in the Bornean shell.

6. *Trochonanina bunguranensis*. (Pl. XVI. fig. 3.)

Testa depresso conica, acute carinata, imperforata, supra sordide fusco-cornea, inferne pallidior, nitida; spira breviter convexe conoidea; anfractus 6, leviter convexi, supra suturam paulo concavi, lente crescentes, lirulis spiralibus pluribus, lineis incrementi obliquis decussatis, sculpti, ultimus utrinque carinam acutam impressus, infra convexiusculus, haud spiraliter lirulatus, antice haud descendens; apertura angusta, obliqua; peristoma tenue, acutum, margine infero in medio excurvato et versus carinam late sinuato, columellari ad insertionem incrassato et reflexo.

Diam. maj. 16 millim., min. 14·5, alt. 8.

*Hab.* Bunguran.

7. *Trochomorpha natunensis*. (Pl. XVI. figs. 4-4 b.)

Testa aperte umbilicata, orbicularis, acute carinata, tenuis, translucida, cornea, fusciscent; spira brevis, conoidea, ad apicem obtusa; anfractus 6, convexiusculi, supra suturam concave depressi, lente accrescentes, superne et infra lineis incrementi tenuissimis striisque spiralibus tenuibus plus minus obsoletis sculpti, ultimus supra et infra carinam acutam æque convexiusculus, haud descendens; apertura parva; peristoma tenue,

simplex, marginibus distantibus, superiore oblique rectiusculo, ventrali arcuato.

Diam. maj. 11.5 millim., min. 10.75, alt. 5; apertura 4.5 lata, 2.5 alta.

*Hab.* Bunguran and Sirhassen.

#### 8. *Sitala carinifera*, Stoliczka.

*Sitala carinifera*, Stol. J. As. Soc. Beng. 1873, vol. xlii. p. 16, pl. i. fig. 8; Tryon, Man. Conch. ser. 2, vol. ii. p. 54, pl. xxv. fig. 16.

*Trochomorpha kusana*, Aldrich, Journ. Cincinnati Soc. N. H. vol. xii. p. 24, pl. iii. figs. 3-3 b.

*Sitala kusana*, Godwin-Austen, P. Z. S. 1891, p. 40, pl. iv. fig. 8.

*Hab.* Bunguran (*Everett*); Penang (*Stoliczka*); Bukil Pondong (*Möllendorff* \*); Gomanton, N. Borneo (*Everett*).

I cannot discern any differences sufficient to separate the Penang and the Bornean shells. A single young example from Bunguran has much the appearance of *S. tricarinata* † from the Nilghiri Hills, India.

#### 9. *Sitala baritensis*, Smith.

*Sitala baritensis*, Smith, Journ. Linn. Soc. 1893, vol. xxiv. p. 343, pl. xxv. fig. 3.

*Hab.* Bunguran (*Everett*); N. Borneo (*Everett*).

Three young specimens from Bunguran are indistinguishable from Bornean examples. *S. perakensis*, Godwin-Austen, is very closely allied and *S. angulata*, Issel, is also very similar.

#### 10. *Sitala sirhassenensis*. (Pl. XVI. fig. 5.)

Testa breviter conica, carinata, angustissime perforata, tenuis, subpellucida, striis spiralibus tenuibus sculpta; anfractus  $5\frac{1}{2}$ , parum convexi, sublente accrescentes, supra suturam carino-marginati, ultimus ad peripheriam acute carinatus, haud descendens, infra medium convexiusculus; apertura angulate lunata; peristoma tenue, margine columellari superne reflexo, albo, perpendiculari. Diam. 4 millim., alt. 3.75.

*Hab.* Sirhassen.

The spiral striæ are excessively fine, and, being crossed by equally fine lines of growth, the surface has a minutely cancellated aspect.

\* P. Z. S. 1891, p. 333.

† Godwin-Austen, Moll. India, pl. x. fig. 10.

11. *Patula persculpta*. (Pl. XVI. figs. 6-6 b.)

Testa orbicularis, late umbilicata, minuta, tenuis, sordide albida, striis concentricis et spiralibus microscopice cancellata; anfractus  $3\frac{1}{2}$ , lente crescentes, convexi, sutura profunda sejuncti, ultimus ad peripheriam rotundatus, haud descendens; apertura parva, oblique lunata; peristoma tenue, simplex, margine columellari vix reflexo; spira depressa, supra anfr. ultimum vix elata.

Diam. 1.5 millim., alt. .75.

*Hab.* Bunguran.

Under the microscope the minute cancellation of the surface is extremely pretty.

12. *Amphidromus perversus*, Linn.

*Hab.* Bunguran and Sirhassen.

Several forms of this variable shell occur in the Natuna collection. They may be thus described:—

1. Entirely white, generally with one or more oblique brown stripes or varices.
2. White below the suture in the last two whorls, closely striped beneath with rich brown, often pinkish towards the apex.
3. Yellow, but with a broad white zone below the suture, with or without one or two oblique brown varices (= *leucoxanthus*, Martens).

The above varieties from Bunguran are not always sharply defined, but intermediates occur between one or other of them. For instance, some examples have so much brown about them that they cannot be included in var. 1, yet they are not sufficiently coloured to come into var. 2. Sometimes specimens of var. 2 have a somewhat yellowish tint like var. 3, and the latter occasionally has more or less of brown striping upon the lower part of the penultimate and last whorls, as in var. 2. The latter variety is very like the form *melanomma*, Pfr. None of the Natuna examples appear to have the apex so dark as that species and none exhibit a yellowish peripheral zone; but not unfrequently there is a more or less defined submedian broad band as in the var. *inversus*, Müller.

4. Obliquely striped with dark brown upon a paler ground, darker below the sharply defined periphery (= *inversus*, Müller).

All the above varieties from the Natunas are represented

by sinistral and dextral specimens. The first three occur at Bunguran, the fourth at Sirhassen.

### 13. *Opeas subula* (Pfeiffer).

*Opeas subula*, Pfeiffer, Mon. Hel. vol. ii. p. 158 (*Bulimus*).

*Hab.* Bunguran and Sirhassen (*Everett*); Sarawak (*Hose*, in *Brit. Mus. and Mus. Cuming*); Cuba (*Pfr.*).

I cannot discover any differences in the specimens from the Natuna Islands and Borneo which are sufficient to separate them from West-Indian examples. Pfeiffer himself also failed to distinguish them, for a specimen from Sarawak in the Cumingian collection is labelled in his own handwriting "*B. subula*, Pfr." Mr. C. Hose has recently presented a large series of specimens, also from Sarawak, an examination of which supports this decision. It also seems to me questionable whether either *O. junceus* (Gould), from the Society and Sandwich Islands, or *O. oparanus* (Pfeiffer), from Opara, possess any real differences which can dissociate them from this species.

### 14. *Pupa Moreleti*, Brown.

*Pupa Moreleti*, Brown, Journ. de Conch. 1870, p. 393; Issel, Ann. Mus. stor. nat. Genova, 1874, vol. vi. p. 415 (*Vertigo*).

*Hab.* Bunguran (*Everett*); Labuan (*Brown*).

I am not quite certain of the identification of the Natuna specimens with this species, as they do not agree in every respect with the diagnosis. They have only five instead of six whorls, and the peristome is brownish, not white.

### 15. *Tornatellina natunensis*. (Pl. XVI. fig. 7.)

Testa parva, ovata, superne subconoidea, tenuis, subpellucida, pallide fuscescens, imperforata, lineis incrementi tenuibus striata; anfractus 4, convexi, apex magnus, rotundatus; apertura perpendicularis, inverse auriformis, longit. totius  $\frac{1}{2}$  paulo minor; perist. tenue, margine columellari leviter contorto, haud incrassato vel reflexo; lamina parietalis tenuissima, intrans.

Longit. 2.5 millim., diam. 1.5; apertura 1.3 longa, .75 lata.

*Hab.* Bunguran.

This genus occurs in the Philippine Islands, but has not yet been discovered in Borneo.

### 16. *Cyclophorus aquilus*, Sowerby.

*Cyclophorus aquilus*, Sowerby, Reeve, Conch. Icon. figs. 45 a, b.

*Hab.* Bunguran and Sirhassen.

The specimens from the above localities of adult age agree precisely with the Malaccan form of this species. In very old examples, however, which have the outer surface more or less worn the aperture becomes of a bright orange-red and the lip is also tinted.

17. *Leptopoma natunense*. (Pl. XVI. fig. 8.)

Testa turbinata, anguste umbilicata, tenuis, pellucida, cornea, pone labrum pallide rufum vel album, striga nigra obliqua ornata; spira conica; anfractus 5, convexiusculi, liris vel carinis tenuibus (in anfract. penult. 4, ultimo 7) instructi, ultimus carina quinta ad peripheriam subangulatus, antice vix descendens; apertura magna, longit. totius  $\frac{1}{2}$  paulo superans; peristoma duplex, margine interno leviter incrassato, externo tenui, plane dilatato ad umbilicum reflexo, extremitatibus callo tenuissimo junctis.  
Diam. maj. 13.5 millim., min. 10, alt. 13.5; apertura intus 6.5 longa et lata.

*Hab.* Bunguran and Sirhassen.

The specimens from Bunguran have the peristome of a pale red tint, whilst in those from Sirhassen it is white.

This species bears a very close resemblance to *L. Mathildæ*, Dohrn, from Mindanao, and is merely a slight modification of that form. It differs in having a slightly narrower umbilicus, an additional spiral lira on the penultimate whorl, no fine spiral striæ or merely the faintest indication of them, and the peristome is more distinctly double, the outer margin being more flatly expanded.

18. *Lagochilus bunguranensis*. (Pl. XVI. fig. 9.)

Testa late umbilicata, depresso turbinata, saturate fusca, liris spiralibus tenuibus undique cincta, lineis incrementi obliquis subcancellata, epidermide rugosa, setosa, amicta; anfractus 6, celeriter crescentes, perconvexi, sutura profunda sejuncti, apicales duo læves, ultimus antice leviter descendens; apertura circularis, intus sordide cærulea, mediocriter magna; peristoma duplex, margine externo breviter expanso, acuto, interno paulo incrassato, cærulescente, superne leviter inciso.  
Diam. maj. 17 millim., min. 13.5, alt. 12; apertura 6 longa et lata.

*Hab.* Bunguran.

This species is well characterized by its deep brown colour, the fine spiral liræ, the strong oblique lines of growth, and the rough epidermis produced into very short hairs upon the ridges. The thin horny yellowish epidermis consists of nine or ten narrow volutions.

19. *Lagochilus sirhassenensis*. (Pl. XVI. fig. 10.)

Testa turbinata, anguste perforata, sordide saturate fusca, liris spiralibus tenuibus instructa, epidermideque oblique striata; anfractus 5, convexi, sutura profunda sejuncti, apicales duo læves, fusco-cornei, ultimus ad peripheriam rotundatus, infra medium liris paucis magis distantibus quam superioribus; apertura longit. totius  $\frac{1}{2}$  adæquans, intus cærulescens; peristoma anguste expansum, intus leviter incrassatum, marginibus callo tenui junctis, ad insertionem minute incisum.

Diam. maj. 10 millim., min. 8, alt. 9.5; apertura 4.5 lata.

*Hab.* Sirhassen.

This species resembles *L. bunguranensis* in colour and the spiral striæ, but differs in its more conical form, narrower umbilicus, and thinner epidermis. The operculum is very thin, yellowish, and consists of about ten volutions.

20. *Lagochilus natunensis*. (Pl. XVI. fig. 11.)

Testa turbinata, perforata, tenuiuscula, lutescens, rufo strigata et variegata, ad apicem saturate fusca, epidermide plus minus lamellosa, setosa et villosa induta; spira elata, conica; anfractus 6, mediocriter convexi, oblique tenuiter striati, liris paucis tenuibus (peripheralibus cæteris majori) instructi, ultimus in medio lirula carinatus, antice leviter descendens; apertura mediocris, circularis, longit. totius  $\frac{1}{2}$  vix æquans; peristoma intus incrassatum, cærulescens, extra tenue, expansum, marginibus callo tenui junctis; sinus minutus.

Diam. maj. 11.5 millim., min. 10, alt. 12; apertura intus 5 longa et lata.

*Var.* Testa, sub epidermide, pallide vel saturate cornea, concolor.

*Hab.* Bunguran and Sirhassen.

The epidermis of this pretty species has a somewhat silky appearance and is very finely lamellated in the direction of the oblique lines of growth and very shortly setose upon the spiral liræ; these usually number two or three on the upper whorls and five or six on the last, the one at the periphery being a trifle more conspicuous than the rest. When present the red markings radiate from the suture and extend somewhat zigzag over the body-whorl.

21. *Lagochilus exiguus*. (Pl. XVI. figs. 12-12 b.)

Testa parva, conica, in medio acute carinata, late umbilicata, lutescens, strigis rufis radiantibus picta, epidermide tenui ad carinam et suturam fimbriata, induta; spira acute conica; anfractus  $5\frac{1}{2}$ , superiores rotundati, læves, tres reliqui convexiusculi,

inferne prope suturam carinis duabus tenuibus spiralibus cincti, lineis incrementi elevatis subdistantibus oblique arcuatis instructi, ultimus in medio bicarinatus, angulatus, inferne convexiusculus rufo radiatim pictus, leviter descendens; apertura circularis, superne minute sinuata; peristoma intus paulo incrassatum, extra acutum, tenue, undique sublate expansum, marginibus callo tenui junctis.

Diam. maj. 7 millim., min. 5.5, alt. 5.5; apertura intus 2.5 lata.

*Hab.* Sirhassen.

This species is remarkable for its small size, the two almost contiguous spiral keels or liræ at the periphery, which also pass up the spire just above the suture, but especially for the peculiar epidermis, which is produced into a sort of fringe upon the carinæ.

## 22. *Cyathopoma tricarinatum*. (Pl. XVI. fig. 13.)

Testa minuta, aperte et profunde umbilicata, turbinata, tenuis, cornea, lævis; anfractus quinque, apicales duo subglobosi, sequentes duo convexiusculi in medio carinati, ultimus carinis tribus tenuibus prominentibus (duabus circa medium, tertia umbilicum circumdante) instructus, haud descendens; apertura subcircularis; peristoma intus incrassatum, marginibus callo tenui junctis, externo paulo expanso, ad extremitates carinarum producto, columellari tenuiore.

Diam. maj. 2.25 millim., min. 2, alt. 2.25; apertura 1 alta et lata. Operculum nigrescens, in medio excavatum, pallidum.

*Hab.* Bunguran.

The uppermost keel of the body-whorl is that which encircles the middle of the upper volutions, and the central one passes up the spire in the suture. The genus occurs in India, Ceylon, Borneo, and the Philippines.

## 23. *Cyclotus natunensis*. (Pl. XVI. figs. 14-14 b.)

Testa mediocriter late umbilicata, depresso turbinata, saturate castanea, strigis flavis a sutura radiantibus et zona macularum irregulariter sagittiformium ad peripheriam ornata, epidermide scabrosa, pilosa induta; anfractus 5, celeriter accrescentes, perconvexi, striis incrementi obliquis aliisque spiralibus sculpti, sutura profunda discreti, ultimus antice leviter descendens; apertura mediocriter magna; peristoma intus incrassatum, subcæruleum, continuum, margine dextro plane expanso, tenue, superne ad suturam haud profunde sinuato.

Diam. maj. 19 millim., min. 15, alt. 13; aperturæ diam. 7.5.

*Hab.* Bunguran.

In this species the whorls are smooth and rounded, but

they are clothed with a roughish epidermis, which is produced into short hairs arranged in spiral series and also in oblique rows upon the lines of growth. When the epidermis is removed only faint indications of spiral striæ are observable. The shelly operculum (figs. 14 *a*, *b*) is white externally, with a corneous nucleus, where it is slightly concave, and consists of seven or eight obliquely striated volutions. It is thick and deeply concave between the outer shelly margin and the inner corneous layer, which is of a bright red tint.

24. *Cyclotus minor*. (Pl. XVI. figs. 15, 15 *a*.)

Testa orbicularis, aperte umbilicata, sub epidermide crassiuscula, striata, lutescens; spira paulo elata, ad apicem obtusiuscula; anfractus  $4\frac{1}{2}$ , convexi, sutura profundissima discreti, superiores distanter costulati, cæteri tenuiter striati, ultimus vix descendens; apertura intus pallide cærulescens; peristoma intus leviter incrassatum, margine externo paulo dilatato, dein aperturam versus anguste reflexo, superne in alam parvam suturalem producto. Diam. maj. 15 millim., min. 11, alt. 7; apertura 4.5 lata.

*Hab.* Bunguran.

Allied to *C. Boxalli* of Godwin-Austen, but much smaller, with the apex of the spire white instead of chestnut and the peristome externally peculiarly granulate-striate.

25. *Pupina Everetti*. (Pl. XVI. fig. 16.)

Testa ovata, superne acuminata, tenuis, pellucida, polita, rufescens; anfractus 6, læves, convexiusculi, infra suturam colore saturatiore anguste marginati, ultimus oblique descendens, sed ad labrum breviter ascendens; apertura subrotunda, superne producta, longit. totius  $\frac{5}{12}$  adæquans; labrum incrassatum, leviter expansum, pallide carneum, in medio prominens, arcuatum; dens parietalis compressus, magnus, prominens, columellæ callo arcuato junctus; columella fissura angustissima obliqua terminata, latissime lingulata.

Longit. 12.3 millim., diam. 7.3; apertura 5 longa, 3.5 lata.

*Hab.* Bunguran.

This handsome species is a little larger than *P. ottonis*, Dohrn, from Mindanao, and of a darker colour; the penultimate whorl, viewed from behind, is higher in proportion to the last, and the linguæform termination of the columella is much broader in the present species. The operculum is thin, of a bronzy-yellow tint, and consists of about eight whorls.

26. *Pupina Evansi*, Godwin-Austen.

*Pupina Evansi*, Godwin-Austen, Proc. Zool. Soc. 1889, p. 351, pl. xxxix. figs. 3, 3 a.

*Hab.* Sirhassen ; N. Borneo (*Everett*).

The type of this species was a dead shell from a cave-deposit. Mr. Everett has since presented to the Museum a living example from Bau, in N. Borneo ; this is of a dirty pellucid appearance, with a pale peristome. The Sirhassen shells are of a brownish colour, becoming reddish towards the lip ; they agree in other respects.

27. *Diplommatina rubicunda*, Martens.

*Diplommatina rubicunda*, Martens, Preuss. Exped. Ost-Asien, Zool. Bd. ii. p. 164, pl. iv. fig. 16.

*Hab.* Sirhassen (*Everett*) ; N. Borneo (*Martens and Everett*).

The specimens from Sirhassen are of a bright red colour, excepting the base of the body-whorl, which appears to be coated with a thin luteous deposit. The umbilical region is covered with a thin, smooth, and sharply defined callus, a feature not referred to by von Martens, but which is present in Bornean examples also.

28. *Diplommatina adversa* (H. & A. Adams),  
var. *natunensis*.

*Diplommatina adversa*, Pfeiffer, Mon. Hel. vol. iii. p. 586 (*Pavillus*) ; Godwin-Austen, Proc. Zool. Soc. 1889, p. 348, pl. xxxviii. fig. 3.

*Hab.* Bunguran and Sirhassen (*Everett*) ; Singapore (*Adams*) ; Sarawak, Busau (*Everett*).

The specimens from the Natuna Islands are smaller than the typical form of this species. They are mostly of a reddish tint, with an orange-red aperture, which looks a trifle smaller than in Bornean examples. The peristome is more rounded above, where it is appressed to the whorl, but certain pellucid lines seen through the transparency of the shell above the aperture are similar in both forms.

29. *Diplommatina Strubelli*. (Pl. XVI. fig. 17.)

Testa dextrorsa, ovata, superne acuminata, imperforata, succinea, ad apicem rufescens, tenuis ; anfractus 6, convexi, liris tenuissimis obliquis ornati, superiores quatuor regulariter crescentes, penultimus maximus inflatus, ultimus paulo angustior, antice leviter ascendens ; apertura irregulariter rotundata vel auriformis ;

columella crassa antice rostrata, in medio dente valido munita; labrum duplex, aurantium, margine interno incrassato, externo expanso, inferne angulatim producto.

Longit. 2·5 millim., diam. 1·3; apertura cum labro 1.

*Hab.* Bunguran.

Across the body-whorl above the aperture a translucent line is visible, apparently indicating an internal lira. I have named this species after Herr Strubell, of Frankfort, who has kindly communicated to me a list of the species of land-shells known to him from the Natuna Islands.

### 30. *Diplommatina congener*. (Pl. XVI. fig. 18.)

Testa dextrorsa, ovata, superne producta, imperforata, rufo-succinea; anfractus 7, supremi duo subglobosi, læves, cæteri convexi costulis tenuibus obliquis instructi, in interstitiis spiraliter microscopice striati, penultimus ultimo latior, ultimus supra aperturam ad lineam nigrescentem peculiariter contractus; apertura subrotundata, ad basim columellæ leviter oblique canaliculata; columella obliqua, in medio dente parvo munita, superne labro callo juncta; labrum intus incrassatum, aurantium, externe expansum, paulo infra suturam angulatim productum.

Longit. 3 millim., diam. 1; apertura ·75 longa.

*Hab.* Bunguran.

The constriction above the aperture indicated by an almost perpendicular blackish-red line is very peculiar and at once distinguishes this species from its allies.

It is smaller than *D. symmetrica*, Smith, from North Borneo, and is furnished with a tooth on the columella, which is wanting in that species. The name *symmetrica* being already in use for a species of this genus from New Guinea, I take this opportunity of substituting that of *gomantonensis* for the Bornean shell.

### 31. *Helicina Martensi*, Issel.

*Helicina Martensi*, Smith, Ann. & Mag. Nat. Hist. 1894, vol. xiii. p. 59.

*Hab.* Sirhassen.

#### Var. *parva*.

Smaller than the typical form and a trifle more globose.

*Hab.* Bunguran.

The form of this species which occurs at Bunguran is considerably smaller than that from Sirhassen and is rather more globose.

The species is known from the Sulu Archipelago, N. Borneo, and Labuan.

## EXPLANATION OF PLATE XVI.

- Fig. 1. *Microcystis bunguranensis*.  
 Figs. 2, 2 a. *Trochonanina affinis*.  
 Fig. 3. — *bunguranensis*.  
 Figs. 4-4 b. *Trochomorpha natunensis*.  
 Fig. 5. *Sitala sirhassenensis*.  
 Figs. 6-6 b. *Patula persculpta*.  
 Fig. 7. *Tornatellina natunensis*.  
 Fig. 8. *Leptopoma natunense*.  
 Fig. 9. *Lagochilus bunguranensis*.  
 Fig. 10. — *sirhassenensis*.  
 Fig. 11. — *natunensis*.  
 Figs. 12-12 b. — *exiguus*.  
 Fig. 13. *Cyathopoma tricarinatum*.  
 Fig. 14. *Cyclotus natunensis*.  
 Figs. 14 a, b. — —. Operculum.  
 Figs. 15-15 a. — *minor*.  
 Fig. 16. *Pupina Everetti*.  
 Fig. 17. *Diplommattina Strubelli*.  
 Fig. 18. — *congener*.

LIII.—On the Tenebrionidæ of Japan.  
 By G. LEWIS, F.L.S.

[Continued from p. 400.]

ADDIA, gen. nov.

The structure of the body in this genus resembles that of *Hemicera*, especially as regards the structure of the under-side; the head is deeply inserted in the thorax, thus shortening the prosternum before the coxæ, and the hind coxæ are rather wide apart. The genus also resembles *Ceropria*, but in that genus the posterior coxæ are closer together and the head is less deeply set in the thorax. The fourth joint of the anterior tarsi in *Addia* (as seen in an Andaman Island species, for the males of others are not known) is as wide in the male as the third. The antennæ are somewhat slender, the third joint scarcely so long again as the first and second united, 4-6 shorter and equal, 7-10 slightly larger, equal, widest anteriorly, terminal joint circular and not pressed into the tenth. In the Pascoe collection there is a species of this genus from the Oriental Region bearing the MS. name I have adopted.



Smith, E. A. 1894. "LII.—On the land-shells of the Natuna Islands." *The Annals and magazine of natural history; zoology, botany, and geology* 13, 453–465.  
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