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Melvill, James Cosmo
Catalogue of the Hadfield
collection of shells from
Lifu and Uvea

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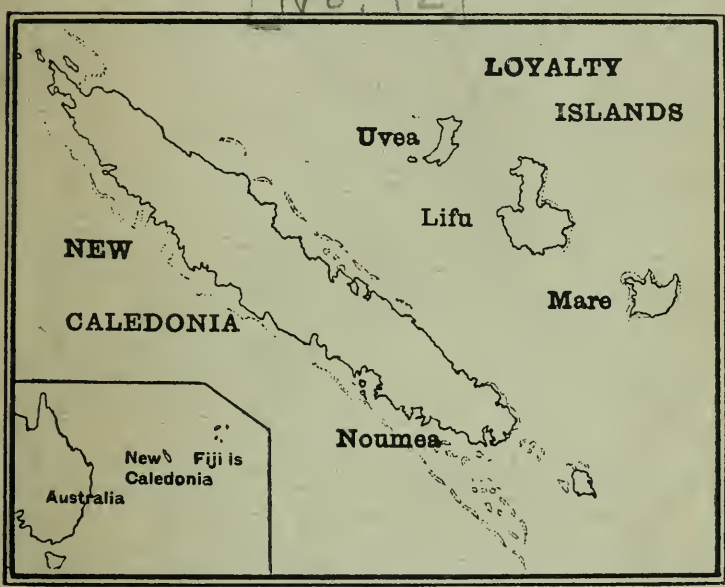


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No. 127



CATALOGUE

OF

THE HADFIELD COLLECTION OF SHELLS

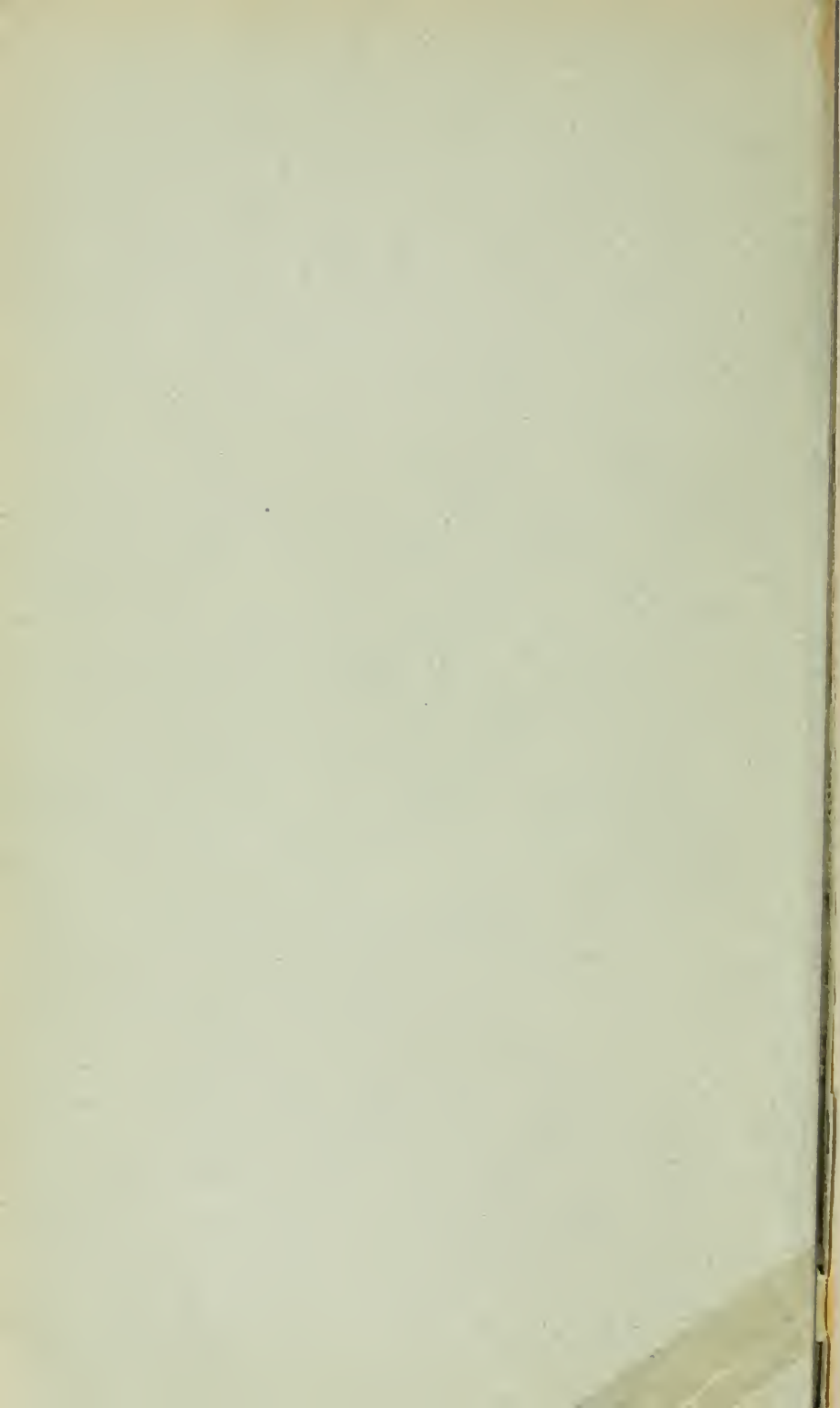
FROM THE

LOYALTY ISLANDS.

pt. I

J. C. Melville by Robert Standen

Price One Shilling.



THE MANCHESTER MUSEUM,
OWENS COLLEGE

MUSEUM HANDBOOKS

CATALOGUE
OF
THE HADFIELD COLLECTION
OF
SHELLS

FROM
LIFU AND UVEA, LOYALTY ISLANDS.

BY
JAMES COSMO MELVILL, M.A., F.L.S.,
AND
ROBERT STANDEN.



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27/11/95

MANCHESTER: J. E. CORNISH.
1895.

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INTRODUCTION.

During the past few years large collections of the shells of Lifu and Uvea have been made by the Rev. James and Mrs. Hadfield, and have been consigned to several Manchester conchologists. By the kindness of Messrs. R. D. Darbishire, R. Cairns, and W. Moss, a very complete series of these shells has been presented to the Manchester Museum, which possesses in addition the types of the majority of the new species here described, though a few remain in Mr. Melvill's cabinet. They have been arranged for exhibition, and a list of them, with notes and descriptions of new species, was drawn up by Mr. J. Cosmo Melvill (a member of the Committee of the Manchester Museum) and Mr. R. Standen (of the Museum staff). As the collection is one of the largest and most important that has been received in this country from the Loyalty Islands, it has been thought desirable to afford the naturalists of Manchester and elsewhere an opportunity of obtaining separate copies of this catalogue, and it has therefore been reprinted from 'The Journal of Conchology' and issued as one of the Museum Handbooks.

WILLIAM E. HOYLE,

Keeper of the Museum.

NOTES ON A COLLECTION OF SHELLS
FROM LIFU AND UVEA, LOYALTY ISLANDS,
FORMED BY
THE REV. JAMES AND MRS. HADFIELD,
WITH LIST OF SPECIES.

BY JAMES COSMO MELVILL, M.A., F.L.S., AND
ROBERT STANDEN.

(Read before the Conchological Society, June 9th, 1894).

THE Loyalty Islands, of which the three principal are Lifu, Maré, and Uvea, form part of the New Caledonian Archipelago, and are situate east of the main isle, with its capital Noumea, being placed long. 168° E. lat. 22° S. They are not, therefore, very far within the tropic of Capricorn.

Belonging to France, it is not surprising that several eminent naturalists of that nation have made an especial study of the fauna of this group. Accordingly we find, mainly in the pages of the 'Journal de Conchyliologie,' numerous papers on both the Terrestrial and Marine Mollusca, mostly from the pens of MM. Crosse, P. Fischer, Souverbie, Gassies, and three resident conchologists of note—Lambert, Marie, and Montrouzier. Mr. John Brazier* has likewise described a few new forms from this region, and we must not omit the name of Mr. Edgar L. Layard, C.M.G., for many years British Consul in New Caledonia, who here, as elsewhere, made large collections.

The period of most active research in this quarter, so far as the mollusca are concerned, would appear to have been the decade 1865-75, but several novelties have been described since that later date.

We cannot find, however, that any catalogue of the whole Marine Molluscan Fauna of the Loyalty Island group has been

Proc. Linn. Soc. N.S.W., iv. (1879), 1880, pp. 388—392.

published, and, as a step towards this desired end, we venture to offer the following list of over 600 species, about twenty or twenty-one of which are considered new, this list being based upon a very beautiful and interesting collection, rich in individuals as well as number of species, formed by the Rev. James and Mrs. Hadfield, of Lifu, and coming mostly from that island, with some also from the neighbouring island of Uvea. They were collected during 1891-3.

Many of them, it is true, are beach shells, and a little worn, but their colours are so untarnished, and condition so perfect as to preclude their being considered as otherwise than in good condition. The small number of Pelecypoda is remarkable; the bulk of the shells collected are marine Gastropoda, and we may signalize *Conus*, *Mitra*, *Cypræa*, and *Columbella* especially as being very numerous, both in individuals and species. We have also included amongst these the terrestrial and fluviatile mollusca, collected by Mr. and Mrs. Hadfield.

It is nothing new to be able to pronounce these islands as being as rich, almost, in marine Mollusca as the famous Philippine Islands, or Mauritius, for MM. Crosse and Fischer give forty-five species of *Mitra* and fifty species of *Conus*, for instance, as being found within the New Caledonian region. Many of these are of very wide distribution, and it is curious to observe how large a number of the forms found in Mauritius are here also, some 3,000 miles or more to the eastward, although it forms part of the same vast sub-division, the Indo-Pacific Province. The late M. Paul Fischer, however, considers the Australo-Polynesian region, in which he places these islands, distinct from the Indo-Pacific Province of Woodward. These sub-divisions, however, must necessarily be somewhat arbitrary, and their lines of demarcation optional. The fact remains, that in the Marine Mollusca, at all events, there is a close connection between the Mauritian and the New Caledonian Fauna.

We had, at first, in mind the possibility of a general

catalogue brought up to date of all the species hitherto reported from this group; but, upon reflection, we think it best merely to include those species received from time to time from Mr. Hadfield. Our especial thanks are due to Mr. William Moss, Mr. R. Cairns, and Dr. G. W. Chaster. To Mr. Moss, for photographing for us some of the new species in a very clear and accurate manner, and for allowing us to inspect, on several occasions, the large stores he received from Mr. Hadfield. To Mr. Cairns for having aided Mr. Moss in the separation and arrangement of so large a mass of material and for having permitted the selection by us of what might be of interest for this catalogue; and to Dr. G.W. Chaster also for some beautiful photographs of the new species, reproduced herewith by the collotype process. This aid has been to us invaluable. To Mr. Edgar A. Smith, F.Z.S., of the Natural History Museum, South Kensington, and to Mr. Ernest Ruthven Sykes, F.Z.S., we must also offer our best acknowledgments, for their ready help in discriminating some of the more critical species, and advice on the subject of the new forms; and to Mr. John Ray Hardy, of the Manchester Museum, Owens College, we are also indebted for much valuable assistance in the arrangement of the collection generally.

LIST OF SPECIES.

CLASS CEPHALOPODA.

ORDER DIBRANCHIATA.

FAMILY *SPIRULIDÆ*.

Spirula Peroni Lam. — Several specimens of this pelagic species, mostly in a fragmentary condition.

ORDER TETRABRANCHIATA.

FAMILY *NAUTILIDÆ*.

Nautilus macromphalus Reeve. — A long suite of individuals ranging in size from very young ones, 22 mill. in diameter, to adult. Two very fine specimens came in spirit and contained the animal in good condition. In

the umbilical cavities of each of these specimens are colonies of a small Cirrhipede, allied to *Lepas fascicularis* L.

N. pompilius Linné.—One adult specimen.

CLASS GASTROPODA.

ORDER PULMONATA.

FAMILY TESTACELLIDÆ.

Micromphalia Saisseti Montr.—Several fine specimens.

Rhytida inæqualis Pfr.—Several.

Diplomphalus lifuanus Montr.—Plentiful and very fine.

FAMILY HELICIDÆ.

Helix aspersa Müller.—A large number of this species were received, mostly differing but slightly from European examples, but several are almost black in colour. Of course the species has been introduced, and Mr. E. L. Layard gives a graphic description of his first finding it in the Island of Lifu in 1879, and subsequent tracing of the authors of its introduction, who were the officers of a French man-of-war (vide Wallis Kew, 'The Dispersal of Shells,' London, 1893).

H. (Geotrochus) sinistrorsa Deshayes=**Buliminus sinistrorsus** Pät.—A curious little shell, placed by Clessin in the sub-section *Pseudopartula* Pfr. Our specimens, of which there are a great number, have been identified as the above by Mr. E. L. Layard and others, but agree as nearly with *Buliminus theobaldianus* Gassies, as figured in Gassies' Faune Conch. Nouvelle-Calédonie, pt. 2 pl. iii., fig. 9.

H. (Patula) costulifera Pfr.—Several.

H. (Patula) confinis Gassies.—Several.

Bulimus (Placostylus) Alexander Crosse.—Several examples of this fine species.

B. (Placostylus) Edwardsianus Gassies.—Several.

B. (Placostylus) fibratus Martyn.—Several.

B. (Placostylus) insignis Petit.—Very abundant, most of the specimens minus epidermis.

B. (Placostylus) ouveanus Dotzauer.—Plentiful; from the island of Uvea.

FAMILY *PUPIDÆ*.

Buliminus (Rachis) Mageni Gass. = **B. histrio** Pfr.—A large number of pretty examples in great variety of colour and pattern of markings.

Vertigo pediculus Shuttl.—Several specimens.

FAMILY *STENOGYRIDÆ*.

Stenogyra (Opeas) artensis Gassies.—Common.

S. (Opeas) Souverbianus Gassies.—Exceedingly abundant in all stages of growth.

FAMILY *SUCCINEIDÆ*.

Succinea (Tapada) Montrouzieri Crosse = **S. australis** Gassies, non Fér.—Fairly plentiful.

FAMILY *AURICULIDÆ*.

Scarabus chalcostomus Adams.—Very abundant.

S. maurulus Gassies.—Many fine specimens.

Plecotrema Souverbiei Montrouzier.—One example.

P. labrella H. & A. Adams.—Likewise one specimen.

Melampus luteus Quoy.—A good many very fine specimens.

M. crassidens Gassies.—Several.

M. coffea Küst.—Not uncommon.

M. fasciatus Deshayes.—Common.

M. flavus Gmelin.—Several.

FAMILY *LIMNÆIDÆ*.

Planorbis Montrouzieri Gassies.—Plentiful.

FAMILY *PHYSIDÆ*.

Physa incisa Gassies.—Many fine specimens.

FAMILY *SIPHONARIIDÆ*.

Siphonaria cochleariformis Reeve.—One specimen.

Siphonaria sp.—Several specimens too worn to identify, but allied to *S. diemenensis* Quoy.

ORDER OPISTHOBRANCHIATA.

FAMILY *ACTÆONIDÆ*.

Actæon affinis A. Adams.—Several of this pretty species.

A. (Buccinulus) solidulus Linné.—Plentiful, and in great variety.

A. (Buccinulus) nitidulus Lamarck.—Common.

A. (Buccinulus) alveolus Souverbie.—Several beautiful specimens.

FAMILY *TORNATINIDÆ*.

Tornatina voluta Quoy.—Several specimens.

FAMILY *SCAPHANDRIDÆ*.

Alys naucum Linné.—Two specimens.

A. debilis Pease.—Several.

A. solida Linné.—Several.

FAMILY *BULLIDÆ*.

Bulla ampulla Linné.—A considerable number of very small specimens.

B. nebulosa Gould.—Many prettily-marked specimens.

Haminea tenera A. Adams.—Three specimens.

Haminea Cairnsiana sp. nov. (Pl. II., fig. 1).

H. testa alba, pellucida, cylindrica, striis transversim regularibus instructa, posticè truncata, lateribus rectis, labro quadratulo, apud basin producto.

Long. sp. majoris ; 8.50 mill. Lat. 6 mill.

Hab. Lifu.

Several specimens, but only a few full grown. A very delicate white shell, allied to *H. papyrus* and also *H. ambigua*, both of A. Adams. It is cylindrical, transversely delicately striate, posteriorly truncate, sides straight, lip slightly quadrate, produced at the base. We received the specimens from Mr. Robert Cairns, of Ashton-under-Lyne, just as Mr. Hadfield had forwarded them to him in shell-sand, and are glad of the opportunity of connecting his name with this new form, in slight recognition of the services he has rendered us.

FAMILY *RINGICULIDÆ*.

Ringicula caledonica Morelet.—Several.

R. australis Hinds.—Many specimens, which we believe are referable to this species, but the genus is a difficult one,

abounding in synonymy and false species, and badly needing a competent monographer.

ORDER PROSOBRANCHIATA.

FAMILY TEREBRIDÆ.

- Terebra (Subula) casta** Hinds.—Near *T. hastata* Menke.
A pretty species. Several specimens.
- T. (Subula) crenulata** Linné.—Several fine specimens in various stages of growth.
- T. (Subula) dimidiata** Linné.—Several.
- T. (Subula) duplicata** Lamarck.—Three specimens.
- T. (Subula) maculata** Linné.—Very numerous in all stages of growth, several specimens being large and well marked.
- T. (Subula) muscaria** Linné.—Abundant and very fine.
- T. (Abretia) affinis** Gray.—A beautiful, but common form. Numerous examples.
- T. (Abretia) cerithina** Lamarck.—One full-grown specimen in good condition.
- T. (Hastula) circumcincta** Deshayes. — A conspicuous shell, spirally transverse-striated. Several specimens.
- T. (Hastula) lanceata** Lamarck.—A number of worn or fragmentary examples of this elegant species.
- T. (Euterebra) Bernardi** Deshayes.—An Australian form. One or two specimens.
- T. (Euterebra) circinata** Deshayes. — A few examples. Originally described from China.
- T. (Euterebra) Mariesii** Smith.—One specimen only, but exactly agreeing with the Japanese type ; it has been referred to the describer of the species.
- T. (Euterebra) straminea** Gray.—Two specimens.
- T. (Euterebra) tricolor** Sowerby.—Several imperfect but characteristic specimens.
- T. (Myurella) argus** Hinds.—One fine example only.
- T. (Myurella) cingulifera** Lamarck.—A few worn shells.
- T. (Myurella) myuros** Lamarck.—Uncommon.

T. (*Myurella*) *nectarea* sp. nov. (Pl. II., fig. 2).

T. testa elongato-subulata, ad basin latiore, albida, parum nitida, supra suturas regulariter brunneo-maculata, anfractibus tridecim, transversim multi-sulcatis, longitudinaliter costatis, costis gemmulatis infra, juxta suturas, duabusque macularum ordinibus plus minusve decoratis, ultimo anfractu bicingulato apud medium atque ad basin, apertura ovata, labro exteriori simplice.

Long., 35 mill. *Lat.*, 10 mill.

Hab., Lifu.

One specimen of this distinct and handsome shell was brought home by Mr. Hadfield in 1891-2. The longitudinal ribs beaded just below, and the double row of brown spots above the sutures, resemble no other species with which we are acquainted, excepting perhaps *T. tigrina* Gmelin, a smooth shell with the same disposition of marking; it bears also some superficial likeness to *T. corrugata* Lam., *T. histrio* Desh., and others of the same section. But in form *T. interlineata* Desh., from the Sandwich Isles, gives the closest approach to our species. This, we believe, is still unique in the Cumingian collection at South Kensington. In this shell, however, the whorls are divided by a broad transverse groove, and there is no sign of this in *T. nectarea*. Care must be taken not to confound imperfect specimens of *Vertagus Martinianus* Pfr. with this shell.

T. (*Myurella*) *nodularis* Deshayes.—Not uncommon. Perhaps only a form of *T. textilis* Hinds.

T. (*Myurella*) *oculata* Lamarck.—Several good specimens of this fine species.

T. (*Myurella*) *subulata* Linné.—Common.

T. (*Myurella*) *textilis* Hinds.—Common.

FAMILY *CONIDÆ*.

***Conus imperialis* Linné.**—Several; one very fine.

***C. marmoreus* Linné.**—Numerous; mostly young specimens.

***C. pulicarius* Bruguière.**—Abundant; several very fine specimens with epidermis intact.

- C. (*Stephanoconus*) *baeticus* Reeve. — Very plentiful; mostly wave-worn.
- C. (*Stephanoconus*) *balteatus* Sowerby. — A few small specimens.
- C. (*Stephanoconus*) *lividus* Bruguière. — Abundant, but few in good condition.
- C. (*Stephanoconus*) *plumbeus* Reeve. — A few differing from the type in colour, which is brickdust red in the Lifu examples received.
- C. (*Puncticulis*) *arenatus* Bruguière. — Great numbers of small-sized specimens, some with epidermis quite perfect.
- C. (*Puncticulis*) *miliaris* Bruguière. — Several.
- C. (*Puncticulis*) *nanus* Broderip. — Many small specimens.
- C. (*Coronaxis*) *fulgetrum* Sowb. — Three good specimens.
- C. (*Coronaxis*) *hebraeus* Linné. — Common.
- C. (*Coronaxis*) *minimus* Linné. — Several.
- C. (*Coronaxis*) *musicus* Bruguière. — Common.
- C. (*Coronaxis*) *sponsalis* Chemnitz. — Several.
- C. (*Coronaxis*) *vermiculatus* Lamarck. — Several.
- C. (*Nubecula*) *geographus* Linné. — Many specimens in all stages of growth and fair condition, some large and well-marked.
- C. (*Nubecula*) *striatus* Linné. — Numerous specimens in all stages, mostly worn.
- C. (*Nubecula*) *tulipa* Linné. — Several small but pretty specimens, with a few of typical size.
- C. (*Dendroconus*) *figulinus* Linné. — Several very large specimens.
- C. (*Dendroconus*) *quercinus* Bruguière. — Three examples.
- C. (*Lithoconus*) *eburneus* Bruguière. — Very abundant; small specimens of the form usually known as var. or sp. *crassus* Brug. occurring in hundreds.
- C. (*Lithoconus*) *litteratus* Linné. — Some small specimens,

all var. *millepunctata* (*Conus millepunctatus* Lamarck)—by some conchologists still considered a good species.

- C. (*Lithoconus*) *magus* Linné.—One specimen only, in poor condition, of this ubiquitous Eastern species.
- C. (*Leptoconus*) *generalis* Linné.—A few somewhat worn examples.
- C. (*Rhizoconus*) *cinctus* Sowerby.
- C. (*Rhizoconus*) *lineatus* Chemnitz.
- C. (*Rhizoconus*) *lithoglyphus* Reeve = *ermineus* Dillw.
- C. (*Rhizoconus*) *miles* Linné.
- C. (*Rhizoconus*) *planorbis* Born.
- C. (*Rhizoconus*) *tahitensis* Bruguière.
- C. (*Rhizoconus*) *vexillum* Reeve.—A large number of each of the above species, of ordinary character and in poor or immature condition generally.
- C. (*Rhizoconus*) *sulphuratus* Bruguière.—One good specimen. We think this is a species distinct from *C. mustelinus* Brug. with which it is usually joined.
- C. (*Chelyconus*) *catus* Bruguière.—Abundant.
- C. (*Chelyconus*) *monachus* Linné.—Several.
- C. (*Chelyconus*) *pertusus* Bruguière.—One fine richly-coloured specimen.
- C. (*Cylinder*) *canonicus* Bruguière.—Two specimens.
- C. (*Cylinder*) *textile* Linné.—Several rather poor examples.
- C. (*Hermes*) *atramentosus* Reeve.—Four specimens.
- C. (*Hermes*) *glans* Bruguière.—Several good examples.
- C. (*Hermes*) *nussatella* Linné.—A few small shells in poor condition.
- C. (*Hermes*) *tenuistriatus* Sowerby.—One specimen only.
- Pleurotoma* (*Turris*) *abbreviata* Reeve.—Very abundant and in fair condition.
- P. (*Turris*) *cingulifera* Lamarck.—Several specimens somewhat worn.
- P. (*Surcula*) *bijubata* Reeve.—Plentiful.
- P. (*Surcula*) *brevicaudata* Reeve.—Common.

P. (*Surcula*) *cincta* Lamarck.—Common.

P. (*Drillia*) *Hadfieldi* sp. nov. (Plate III., fig. 23).

P. testa fusiformi, albida, rugosa, anfractibus septem, longitudinaliter paucicostatis, costis crassiusculis, ventricosis, transversim funiculatis, costis alternatim squarrosé ochraceotinctis, apertura subrotunda, labro exterioré incrassato, intus denticulato, columellari simplice, extus minuté albipustulato.

Long., 6 mill. Lat., 3 mill.

Hab., Lifu.

A pretty species, small, roughly ventricosely costate, transversely crossed by coarse raised lines, the ribs being alternately squarely blotched with ochraceous, columellar lip smooth and simple.

P. (*Drillia*) *Lamberti* Montrouzier. — Two specimens. Seemingly allied to the West Indian *Pl. zebra* Lam.

P. (*Drillia*) *obliquicostata* Reeve.—Common.

P. (*Drillia*) *pupoidea* A. Adams.—Very abundant. This species is identical with *Pl. victor* Sow., recently described from Mauritius.

P. (*Drillia*) *regia* Beck.—A number of fine and beautifully-marked specimens. One of the most attractive of the genus.

P. (*Crassispira*) *fuscescens* Gray. — Several specimens. Also found in the West Indies, thus showing a wide distribution.

P. (*Clavus*) *bilineata* Reeve.—One or two examples.

P. (*Clavus*) *unizonalis* Lamarck.—Common.

P. (*Clavus*) *vidua* Reeve.—Plentiful; very variable in size.

Mangilia (*Defrancia*) *albifuniculata* Reeve.—One specimen of a very small though striking species.

M. (*Defrancia*) *granicosata* Reeve. — Several pretty specimens.

M. (*Defrancia*) *philippinensis* Reeve.—Rather common.

M. (*Defrancia*) *granularis* E. A. Smith.—Two specimens.

M. (Glyphostoma) Aliciæ sp. nov. (Pl. II., fig. 15).

M. testa elongato-fusiformi, gracillima, nivea, anfractibus decem, in medio ventricosulis, apud suturas subconstrictis, undique confertim transverso-striatis, longitudinaliter rotundocostatis, apertura oblonga, labro exteriori multum incrassato, brunneo-tincto, præcipue marginem apud suturalem, simul ac ad basim labri exterioris.

Long. 9 mill. Lat. 4-50 mill.

Hab. Lifu.

About twenty specimens of this pretty species of *Glyphostoma*, which occupies a position near *G. crassilabrum* Reeve, but is distinct. It is white, graceful, ten-whorled, the whorls somewhat ventricose, transversely striate, and roundly longitudinally costate. The outer lip is much thickened, and the outer sinus stained brown, there being also a brown blotch towards the base of the outer lip. We have much pleasure in associating with this species the name of Miss Alicia Mayor Standen, who has assisted us considerably in the general assortment of a large portion of the collection.

M. (Glyphostoma) calcicincta sp. nov. (Pl. III., fig. 21).

M. testa minuta, incrassata, rugosa, pellucida, nivea, anfractibus sex, longitudinaliter crassicostatis, costis paucis prominentibus, apud medium transversim una conspicua zona, calcarea, candida, opaca, circumambiente, ultimum apud anfractum latiore, apertura angusta, labro exteriori crassiusculo, albo, minutè pustulato, intus quadri-denticulato, columellari quadri-plicato.

Long. 4 mill. Lat. 2-25 mill.

Hab., Lifu.

A single specimen in beautiful condition of a little bright white semi-opaque shell, this opacity being caused by a dead-white transverse band crossing the coarse ribs and becoming broader in the last whorl. The outer lip, under a lens, is very beautiful, being minutely warted, and with four denticles, the columellar margin with four plaits. This species is of the same character as *G. rugosa* Mighels.

M. (Glyphostoma) crassilabrum Reeve.— One or two specimens.

M. (Glyphostoma) cremonilla sp. nov. (Pl. III., fig. 31).

M. testa fusiformi, solidiuscula, pallide-straminea, infra suturas ochraceo-cincta, anfractibus septem, apud medium longitudinaliter ventricosè crassi-costatis, transversim rudiliratis, liris paucis, incrassatis, apertura oblonga, labro exteriore intus sex-denticulato columellari multiplicato.

Long., sp. maj., 12 mill. Lat., 6 mill.

Hab., Lifu, in shell sand.

By those authors who would reconstitute the genus or sub-genus *Borsonia* (Bellardi), founded upon a Tertiary fossil possessing one or more columellar plaits, this species and two or three others from Lifu would be included in it. At present we prefer following the arrangement as set forth in our National Collection, and adding these new forms to the sub-genus *Glyphostoma*, and taking as the types *G. crassilabrum* Reeve and *G. rugosum* Mighels. The *G. cremonilla* cannot be confounded with *G. nigrocinctum* (Montrouzier) from New Caledonia; it is a coarser-ribbed species, and banded with pale ochre, not black. Two specimens.

M. (Glyphostoma) Emmæ sp. nov. (Pl. III., fig. 24).

M. testa acuminata, fusiformi, semi-pellucida, pallidè straminea, ventricosa, anfractibus octo, omnibus præter ultimum longitudinaliter paucicostatis, transversim fortiter supra suturas bi vel tri-funiculocinctis, regulariter inter costas longitudinales, juxta suturas, squarrosè brunneo-maculatis, ultimo anfractu apud medium simili modo decorato, longitudinaliter multi-costulato, transversimque multi-funiculato, apertura oblonga, labro exteriore denticulato, præsertim uno dente conspicuo columellari quadri-denticulato, canali brevi.

Long., 12 mill. Lat., 5 mill.

Hab., Lifu, in shell-sand.

A very elegant little species, in good condition, somewhat ventricose, acuminate, semi-transparent, and straw-coloured, unicolorous excepting for the few square brown spots situate just above the sutures, between the longitudinal costæ on the central whorls and continued in the middle of the last whorl, culminating in the specimen before us in a large dorsal square brown mark near the outer lip. The whorls, with the exception

of the last, are few ribbed, and transversely crossed twice or thrice with strong projecting corded ribs, the last whorl is many ridged and many corded. Mouth oblong, with a very strong prominent tooth in the outer lip, which is, besides, 4-denticulate, the columellar margin being also 4-denticulate. Canal rather short.

We have much pleasure in associating the name of Mrs. Emma Hadfield with this attractive little shell.

M. (Glyphostoma) Giliberti Souverbie.—Described originally from the island of Lifu: our only specimen agrees fairly with the description and representation.

M. (Glyphostoma) rugosa Mighels.—Several.

M. (Glyphostoma) scalarina Deshayes.—One specimen.

M. (Glyphostoma ?) theskela sp. nov. (Pl. III., fig. 26).

M. testa attenuato-fusiformi, gracillima, delicatula, albida, anfractibus sex vel septem, longitudinaliter costulatis, transversim densiliratis, livis tenuibus, supra, juxta suturas, inter costas et apud medium anfractus ultimi brunneo-maculatis, apertura oblonga, labro exteriori crassiusculo, simplice, margine columellari octo-plicato.

Long., 7-50 mill. *Lat.*, 3 mill.

Hab., Lifu.

This very interesting little shell we place provisionally under *Glyphostoma*, from which assemblage it differs in the simple outer lip and more uniform shape. The inner or columellar margin of the lip possesses seven or eight close and minute plicæ, there is also one minute process at the parietal sinus. It is of a graceful attenuate form, six-whorled, or perhaps seven, but the apex is broken off in the only specimen we have. The pure whiteness of the shell is relieved by a row of brown spots between the ribs just above the sutures and in the middle of the last whorl. The specific name is from the Greek *θέσκελος* 'wonderful,' in allusion to the strange configuration of the species.

M. (Cythara) cithara Gould.—A few pretty specimens.

M. (Cythara) inepta Smith.—One fine specimen. Hitherto

only recorded from Honduras! The author of the species has examined our specimen and agrees with our determination.

- M. (Cythara) reticulata** Reeve.—Common; a very elegant form.
- M. (Cythara) vexillum** Reeve.—Abundant.
- M. (Daphnella) bella** Reeve.—Several specimens of this curiously-marked species.
- M. (Daphnella) dulcinea** sp. nov. (Pl. III., fig. 25.)

M. testa fusiformi, albida, anfractibus sex, ventricosis, apud suturas impressis, longitudinaliter costulatis, transversim delicatuli-striatis, hic illic minutissimè sparsim brunneo-punctatis, apertura oblonga, labro exteriorè effuso.

Long., 6 mill. Lat., 2.50 mill.

Hab., Lifu.

A very delicately-striated shell, with swollen whorls, impressed at the sutures, obscurely longitudinally ribbed; outer lip effuse, under a lens the surface is seen to be very finely besprinkled with minute dust-like brown spots. One specimen.

M. (Daphnella) nexa Reeve.—A few only.

M. (Daphnella) saturata Reeve.—Several.

Besides these there are a few species of minute *Pleurotomidæ* that we cannot yet determine. Many species have been described, mainly by French conchologists, of which we have no representatives in our National or other collections.

FAMILY CANCELLARIIDÆ.

Cancellaria (Trigonostoma) costifera Sowerby.—Several specimens. This genus seems but poorly represented in the Loyalty Islands, although several are described from New Caledonia.

FAMILY OLIVIDÆ.

Oliva (Strephona) episcopalis Lamarck.—A large number of handsome specimens.

O. (Strephona) erythrostoma Lamarck.—Very numerous. Some specimens unusually large, all in excellent condition and brilliantly coloured.

- O. (*Strephona*) *masaris* Duclos.—A fine specimen, now in the collection of the Ven. Archdeacon Anson.
- O. (*Strephona*) *guttata* Lamarck.—A large number of very pretty specimens in all stages.
- O. (*Strephona*) *maura* Lamarck.—Two specimens only.
- O. (*Strephona*) *picta* Reeve.—Two specimens, in worn condition.
- O. (*Strephona*) *tremulina* Lamarck.—Several very fine specimens of an unusually dark form.
- O. (*Porphyria*) *sericea* Bolt.—Two fine specimens.
- Olivella parvula* Martyn (?)—Several specimens, all somewhat worn, and therefore rather doubtful.

FAMILY *HARPIDÆ*.

- Harpa articularis* Lamarck.—One specimen in young condition.
- H. minor* Rumphius.—Two specimens in the Manchester Museum, Owens College, and three fine ones in the collection of the Ven. Archdeacon Anson—all received from Mr. Hadfield.

FAMILY *MARGINELLIDÆ*.

- Marginella* (*Persicula*) *lifuana* Crosse.—A considerable number of this pretty little species.
- M. (*Volvaria*) *caledonica* Jousseau.—Very near the West Indian *M. avena* and *M. tenuata*, but the columella is only three-plaited, and the angle at the suture of the last whorl is more pronounced. Several specimens.

FAMILY *MITRIDÆ*.

Species of this family, exclusive of *Turricula*, are exceedingly well represented by an enormous number of individuals in all stages, and for the most part in fairly good condition.

- Mitra* (*Eumitra*) *cardinalis* Gmelin.—Several.
- M. (*Eumitra*) *episcopalis* Linné.—Many very fine specimens, some of the adults having the outer lip beautifully serrated.

- M. (Eumitra) pontificalis** Lamarck.—One adult and several young specimens.
- M. (Scabricula) eximia** A. Adams.—All of a beautiful warm reddish orange colour variety. One of the most abundant shells sent. The typical form occurs in the Mauritius.
- M. (Scabricula) sphærolata** Martyn.—Very common, but mostly worn and poor.
- M. (Scabricula) texturata** Lamarck, var. *lifouana* Crosse.—Very plentiful.
- M. (Cancilla) filaris** Linné.—This species, for many years known as *M. filosa* Born., possesses two well marked varieties, the typical *M. filaris* being an attenuate and fusiform shell, the form β . *nexilis* Martyn, to which all the Lifu and Uvea specimens we have seen belong, is much more obese than the type. The late Mr. Andrew Garrett, who is entitled to speak authoritatively on the subject, as his personal acquaintance with the Polynesian *Mitride* was more extended and full than that of any who have preceded or followed him, considered *M. nexilis* a true species. (*c.f.* Garrett, Polynesian *Mitride*, "Journal of Conchology," vol. iii., p. 21, 1880).
- M. (Chrysame) ambigua** Swainson.—Plentiful.
- M. (Chrysame) coronata** Chemnitz.—This species and *M. tiarella* seem almost too closely allied. The forms we here place under *M. coronata* would appear intermediate between the two. It is abundant on the coasts of Lifu and Uvea.
- M. (Chrysame) ericea** Pease.
- M. (Chrysame) laeta** Adams.
- M. (Chrysame) lugubris** Swainson.
- M. (Chrysame) tiarella** Swainson.
- M. (Chrysame) ticaonica** Reeve.
- M. (Chrysame) turgida** Reeve.
- M. (Chrysame) vexillum** Reeve.

Most of the above very plentiful, but usually waterworn and in poor condition.

M. (Chrysame) fulvosulcata Melvill, Journal of Conchology vol. v., p. 287, 1888. (Pl. III., fig. 32.)

Originally described from Mauritian specimens sent by Mr. Robillard to Mr. G. B. Sowerby. Several have now come to our notice from Lifu, and the species will doubtless occur in intermediate localities. The transverse furrows, stained with yellow, impart at once a characteristic appearance to the species. We figure the original type, from Mauritius.

M. (Volutomitra) honesta sp. nov. (Pl. III., fig. 17.)

M. testa pyramidato-fusiforimi, nitida, brunnea, crassiuscula, lævi, anfractibus sex, ultimo rapidè accrescente, ventricoso, apud medium transversim unicingulatis, apertura oblonga, intus cinerea, labro exteriorè paullum incrassato, effuso, columella triplicata, plicis conspicuis, cinereis.

Long., 10 mill. Lat., 4.5 mill.

Hab., Lifu.

Two specimens of a little *Mitra* somewhat resembling the Mediterranean *Volutomitra ebenus* Lam., and possibly a tropical form of that variable species, though its presence in Lifu would hardly be suspected.

M. (Strigatella) decurtata Reeve = **M. scutulata** Lam.—

Several very fine specimens.

M. (Strigatella) flexilabris Swainson.—One or two in good condition.

M. (Strigatella) litterata Lamk. = **M. maculosa** Reeve.—Common.

M. (Strigatella) retusa Reeve = **M. paupercula** Lamarck.—A large number of rather poor specimens.

M. (Strigatella) zebra Reeve.—Common.

M. (Turricula) turriger Reeve.—One specimen.

M. (Costellaria) arenosa Lamarck.—Common.

M. (Costellaria) armiger Reeve.—Several.

M. (Costellaria) cadaverosa Reeve.—Common.

M. (Costellaria) Deshayesi Reeve.—Some large and very beautiful specimens of this interesting species.

- M. (*Costellaria*) *dimidiata* Sowb.—A few good specimens.
 M. (*Costellaria*) *discoloria* Chemnitz.—Common.
 M. (*Costellaria*) *exasperata* Reeve.—Abundant, but mostly of a variety we characterize as follows :—
 M. (*Costellaria*) *exasperata* var. *Hadfieldi* var. nov. (Pl. II., fig. 14.)

Shell turreted, eight or nine ribbed, differing from the type in being dark-brown, banded at the line of the sutures of the upper whorls, and also twice transversely banded at the last whorl. Occasionally specimens occur wholly suffused with dark-brown.

An extremely common form at the Loyalty Islands, several hundred specimens having been forwarded by Mr. Hadfield.

- M. (*Costellaria*) *modesta* Reeve.—A few.
 M. (*Costellaria*?) *nitidissima* sp. nov. (Pl. III., fig. 19.)
M. testa minuta, perlævi, nitente, brunnea, tenui, anfractibus sex, paululum ventricosis, longitudinaliter costulatis, apertura oblonga, labro exteriorè vix incrassato, columella quadriplicata.
Long., 5 mill. Lat., 1·5 mill.
Hab., Lifu.

Four specimens from shell-sand, all precisely alike, of a very small brown, very shining and smooth shell, longitudinally roundly costate; columella four-plaited. The species may really belong to *Volutomitra* rather than *Costellaria*.

- M. (*Costellaria*) *nodilyrata* A. Adams.—Several.
 M. (*Costellaria*) *pacifica* Lamarck.—Rather larger than *M. cadaverosa* of which it may be but a variety. Many specimens.
 M. (*Costellaria*) *semifasciata* Lamarck.—Not uncommon.
 M. (*Pusia*) *alveolus* Reeve.—Three not quite full grown specimens we refer almost certainly to this species; the vivid black and white marking, as in *M. tusa* Reeve, rendering it conspicuous. It is allied both to this species and also *M. Shoplandi* Melvill, lately described from Aden.
 M. (*Pusia*) *amabilis* Reeve.—A few good specimens.

- M. (Pusia) dermestina** Lam.—Several.
- M. (Pusia) lubens** Reeve.—One specimen.
- M. (Pusia) luculenta** Reeve—Several specimens. Probably a variety of *M. Graeffei* Crosse.
- M. (Pusia) muriculata** Lamarck.—Extremely abundant, but few specimens in good condition.
- M. (Pusia) nodosa** Swainson.—Several.
- M. (Pusia) Savignyi** Payr. — Two specimens. Quite inseparable from the Mediterranean shell (*vide* E. A. Smith).
- M. (Pusia) rosea** Reeve.—A pretty purple species. Two or three specimens.
- M. (Pusia) tuberosa** Reeve.—Very common.
- M. (Pusia) tusa** Reeve.—Several pretty specimens in good condition.
- M. (Pusia) venustula** Reeve.—Common.
- M. (Cyllithea) casta** A. Adams.—One good specimen of this elegant species.
- M. (Cylinder) dactylus** Linné.—One very fine specimen.
- M. (Cylinder) nucea** Gronovius.—Common.
- M. (Cylinder) crenulata** Lamarck.—A few small specimens.
- Imbricara conica** Schmck.—Many small specimens.
- I. olivæformis** Swainson.—Several.
- I. ossea** Reeve = **I. punctata** Swainson.—A number of rather worn specimens.

FAMILY FASCIOLARIID.E.

- Fusus gradatus** Reeve.—One good specimen.
- Fasciolaria filamentosa** Martyn.—A number of very fine fresh specimens.
- Latirus lautus** Reeve.—Several.
- L. nodatus** Martyn.—One young specimen.
- L. (Plicatella) caledonicus** Petit. — Very plentiful, but mostly in poor condition.
- L. (Plicatella) polygonus** Linné.—Two specimens in the Manchester Museum, one in the collection of the Ven. Archdeacon Anson.

- L. (*Peristernia*) *aureotinctus* Lamarck.—One specimen in the Manchester Museum, one in J. C. Melvill's collection.
- L. (*Peristernia*) *chlorostomus* Sowerby = *L. crenulatus* Kiener.—Three nice specimens.
- L. (*Peristernia*) *incarnatus* Deshayes.—Several specimens in various stages.
- L. (*Peristernia*) *nassatulus* Lamarck.—Several.

FAMILY *TURBINELLIDÆ*.

- Cynodonta* *ceramica* Kiener.—Two small specimens.
- C. cornigera* Lamarck.—Several immature specimens.
- C. imperialis* Reeve = *C. tubifera* Anth.—Two specimens.

FAMILY *BUCCINIDÆ*.

- Tritonidea* (*Cantharus*) *gracilis* Reeve.
- T. (Cantharus) undosus* Linné.
- T. (Cantharus) marmoratus* Reeve.
A few specimens of each, mostly worn.
- T. (Cantharus) menkeanus* Dunker.—Our only example agrees very well with Japanese specimens of Dunker's species in J. C. Melvill's collection.
- Engina* *alveolata* Kiener.—One or two examples.
- E. astricta* Reeve.—Several good specimens showing some variation.
- E. iodosia* Duclos. (Pl. III., fig. 20).—A most interesting re-discovery of a lost species, which has not been with absolute certainty identified by any conchologist since the time of the original describer, although its identity was suspected by the late Mr. G. W. Tryon, Junr. It appears to run into its allies, *E. monilifera* Reeve, and *E. echinata* Pse. (both of which will have to be merged in *iodosia*) and exactly resembles Duclos' figure. These figures are considered by some to be fantastic and artificial, so many—exceeding fifty species—having been thus described by Duclos, and not identified since, mostly appertaining to the genera *Columbella*, *Engina* and *Oliva*; but

we hope, since several have been satisfactorily re-identified, others will follow. His plates, reproduced also by Tryon, are very clear, and should leave little room for doubt when comparison is needed.

E. lineata Reeve.—In hundreds.

E. mundula sp. nov. (Pl. II., fig. 6).

E. testa parva, oblonga, solida, alba, obtusa, anfractibus sex, longitudinaliter costatis, costis sulcis transversim decussatis, gemmulato-noduliferis, brunneo ochreoque alternatim pictis, apertura angusta, labro crassiusculo, brunneo hic illic maculato.

Long., 8 mill. *Lat.*, 4 mill.

Hab., Lifu.

A few specimens of a pretty little shell, doubtless allied to *E. lauta* Reeve from the Philippines, but differing much in size, (being about half the diameter of *E. lauta*), and also in greater obesity of whorl.

E. phasinola Duclos.—Several specimens. There can be but little doubt that this species is not a *Columbella*.

E. rutila Reeve.—Very rare.

E. spica sp. nov. (Pl. II., fig. 12).

E. testa attenuato-pyramidata, solida, albida, squarrosé brunneo maculato, anfractibus octo, undique transversim densi-striatulis, irregulariter costatis, costis subacutis, ultimo anfractu in medio conspicuè angulato, apud basim attenuato, apertura angusta, labro exteriori incrassato, intus denticulato.

Long., 11 mill. *Lat.*, 5 mill.

Hab., Lifu.

A striking little shell, of which only one specimen in very fine condition occurred. Its nearest allies are *E. alveolata* Kiener, and *E. Reevei* Tryon=*alveolata* Reeve non Kiener. It is white, solid, attenuate at both extremities, with irregular acutely noded ribs, the nodules imparting a prickly angular appearance to the centre of the last whorl especially. The mouth is narrow, dentate on the interior of the outer lip, which is thickened in the manner characteristic of the genus; the

coloration is, as has been said, white, with squarrose brown variegated markings.

E. sinensis Melvill.—Proc. Malac. Soc., vol. i., p. 227, 1895. (Pl. III., fig. 27).

This species, described since the original reading of this paper, from two specimens in the National Collection marked 'China Seas,' has, curiously enough, turned up in fair quantity, viz., ten or twelve specimens, in the Loyalty Islands also. We have thought it worth while to append a figure taken from Lifu specimen.

E. variabilis Pease.—A few, but worn, specimens.

E. zatricium Melvill.—Proc. Malac. Soc., vol. i., p. 51, 1894. (Pl. II., fig. 4).

Described from Mr. Hadfield's first consignment of specimens, and found not to be infrequent by the numerous examples, since received. It is allied to *E. bonasia* von Mart. and *E. fusiformis* Pease, but distinct from both. We give a representation of this species.

E. zonata Reeve.—In remarkable abundance, and more plentiful than *E. lineata*, which, while it occurred in its hundreds, was eclipsed by the thousands of *E. zonata*. Mostly in capital condition, and showing a good deal of variation, some specimens, for example, being quite black at the base, with hardly any white markings at all.

E. (Pusiostoma) mendicaria Linné. — Abundant and variable.

It will be seen by the above array of species of this genus that the Loyalty Islands may almost be considered their metropolis, and we hope, in future, for other interesting and perhaps yet unknown species from this locality. It is urgently to be wished that some specimens might be dredged alive so as to afford opportunity for examination of the radula.

Phos nodicostatus E. Ad.—Two specimens of this elegant form.

P. senticosus Linné.—Common and very fine.

FAMILY *NASSIDÆ*.

Nassa arcularia Linné.

N. coronata Bruguière.

N. callospira A. Adams = *N. callosa* A. Adams.

N. (Niotha) albescens Dunker.

N. (Niotha) densigranata A. Ad.—Not quite typical.

N. (Arcularia) globosa Quoy.

N. (Arcularia) granifera Kiener.

N. (Alectryon) glans Linné.

N. (Alectryon) monilis Kiener.

N. (Alectryon) mucronata A. Ad.

N. (Alectryon) papillosa Linné.

N. (Alectryon) suturalis Sowerby.

N. (Telasco) dispar Adams = *N. filosa* Gray.

N. (Telasco) fluctuosa Adams.

N. (Telasco) gaudiosa Sowerby. — Many varieties of this species.

N. (Hebra) uricata Quoy and Gaim.

N. (Hima) eximia H. Adams.

N. (Hima) plebecula Gould.

Of the above, *N. granifera* and *N. monilis* are the most abundant—some hundreds of each; but nearly all are well represented by good specimens in various stages of growth. Besides these, there are seven or eight other *Nassæ* that we have been unable, so far, to identify.

FAMILY *COLUMBELLIDÆ*.

Columbella (Pygmæa) Tankervillei Montr. — Abundant, but poor specimens.

C. (Pygmæa) turturina Lamarck.—Plentiful; variable in size and colour.

C. (Pygmæa) Tyleri Gray = *C. pardalina* Lam.—Over a thousand specimens in every conceivable variation of colour and marking, and in excellent condition.

- C. (*Pygmæa*) *varians* Sowerby.—A large number of pretty specimens.
- C. (*Pygmæa*) *versicolor* Sowerby.—Several.
- C. (*Mitrella*) *albina* Kiener.—Common.
- C. (*Mitrella*) *ligula* Duclos.—Very abundant, and showing considerable variation in colouration. Quite the most beautiful of the genus, in our opinion.
- C. (*Atilia*) *galaxias* Reeve.—Several pretty examples.
- C. (*Amycla*) *conspersa* Gaskoin. — An elegant species of which we have a few nice specimens. We are indebted to Mr. S. Pace for these last two identifications.
- C. (*Anachis*) *lachryma* Gaskoin.—Very few.
- C. (*Anachis*) *marquesa* Gaskoin. — Several specimens, which exhibit so much variation, both in form, sculpture, and marking, as to be apparently separable into two or three species. We are again indebted to Mr. Pace, who is making an especial study of the genus, for his opinion on this matter.

FAMILY MURICIDÆ.

- Murex** (*Chicoreus*) *adustus* Lam.—Several good specimens and many worn ones. This includes *M. australiensis* A. Adams, a colour variety represented in some quantity.
- M.** (*Vitularia*) *vitulinus* Lam. = **M.** *purpura* Chem.—Three specimens.
- M.** (*Ocinebra*) *benedictus* sp. nov. (Pl. II., fig. 12).

M. testa parva, candida, ovato-fusiformi, anfractibus sex biangulatis, undique transversim tenuissimè, sub lente, strigillatis, longitudinaliter paucicostatis, costis angulatis arguté anguliferis, hic illic squarrose pallide brunneo tessellatis, apertura angusta, oblonga, ad basim producta, labro exteriorè conspicuè denticulato.

Long., 7 mill. Lat., 4 mill.

Hab., Lifu, in shell-sand.

A very small but exquisite shell, of which we have only seen one full-grown specimen. It is white, microscopically transversely finely lirate, longitudinally few ribbed, ribs sharply

angled and almost prickly. The aperture is narrowly oblong, outer lip conspicuously toothed within. It is a moot question whether this species is an *Ocenebra* or *Coralliophila*; we incline to the former view at present.

M. (*Ocenebra*) *breviculus* Sowerby.—One specimen.

Purpura persica Lamarck.—Five fine specimens.

P. (*Thalessa*) *bitubercularis* Lamarck. — A few small specimens.

P. (*Thalessa*) *hippocastanum* Linné.—One specimen.

P. (*Thalessa*) *intermedia* Kiener.—Several.

P. (*Stramonita*) *rustica* Lamarck.—One specimen.

P. (*Stramonita*) *vexillum* Reeve.—A few small examples.

P. (*Iopas*) *sertum* Lamarck.—One fine specimen.

Pentadactylus (*Ricinula*) *arachnoides* Lamarck = **P.** *ricinus* L.—Several specimens of both type and var. *albolabris* Blainville.

P. (*Ricinula*) *biconicus* Blainville.

P. (*Ricinula*) *clathratus* Lamarck.

P. (*Ricinula*) *digitatus* Lamarck.

P. (*Ricinula*) *horridus* Lamarck.

P. (*Ricinula*) *spectrum* Reeve.

A fair number of each of above, excepting *P. biconicus*, in moderate condition.

P. (*Sistrum*) *anaxares* Duclos.—Several examples of this pretty little *Engina*-like species.

P. (*Sistrum*) *asper* Lamarck.—Common.

P. (*Sistrum*) *cavernosus* Reeve = **P.** *ochrostomus* Blainville.—Common.

P. (*Sistrum*) *chaideus* Duclos.—Common.

P. (*Sistrum*) *chrysostomus* Desh.—Common and variable.

P. (*Sistrum*) *fragrum* Blainville.—One example only.

P. (*Sistrum*) *margariticulus* Broderip.—Several specimens.

A variable species that requires more careful attention in order to discriminate its extent of variation.

P. (*Sistrum*) *morus* Lamarck.—Abundant.

FAMILY *CORALLIOPHILIDÆ*.

- Coralliophila coronata* Barclay.—Worn, but agreeing with specimens of the Mauritian shell in J. C. Melvill's collection.
- C. madreporarum* Sowerby.—Several specimens in a worn condition.
- C. monodonta* Quoy.—One specimen.
- C. neritoidea* Chemnitz=*C. violacea* Auct.—Several fine specimens in the Manchester Museum and the collection of the Ven. Archdeacon Anson.

FAMILY *TRITONIDÆ*.

- Triton variegatus* Lamarck.—Many, in various stages of growth.
- T. (Simpulum) aquatilis* Reeve.—One good specimen.
- T. (Simpulum) chlorostomus* Lamarck.—One only.
- T. (Simpulum) eximius* Reeve.—One.
- T. (Simpulum) gemmatus* Reeve.—Several. A very neat shell.
- T. (Simpulum) pilearis* Linné.—Three examples.
- T. (Simpulum) rubecula* Linné.—Plentiful and extremely varied in colouration. A rather small form.
- T. (Cabestana) labiosus* Wood.—One example.
- T. (Lotorium) pyrum* Linné.—A single fine specimen.
- T. (Lotorium) tuberosus* Lamk.—Many small specimens.
- T. (Epidromus) decapitatus* Reeve.
- T. (Epidromus) obscurus* Reeve.
- T. (Epidromus) truncatus* Hinds.
- A single specimen each of the above three species.
- T. (Persona) ridens* Reeve.—One very juvenile example only.
- R. (Lampas) affinis* Broderip.—Several.
- R. (Lampas) livida* Sowerby.—Abundant.
- R. (Lampas) siphonata* Reeve.—One specimen.
- R. (Apollon) anceps* Lamarck.—One worn example.
- R. (Apollon) pusilla* Broderip.—Several, worn.

FAMILY *CASSIDIDÆ*.

- Cassis (Semicassis) pila* Reeve.—One poor example.

- C. (*Casmaria*) *torquata* Reeve.—Three specimens in good condition.
 C. (*Casmaria*) *vibex* Linné.—Several.

FAMILY *DOLIIDÆ*.

- Dolium olearium* Brug.—Several medium-sized examples.
 D. *perdix* Linné.—Several ; one or two very fine.

FAMILY *CYPRÆIDÆ*.

- Ovula ovum* Linné.—A large series of very fine shells, one of which has been bored for wearing as an ornament.
 O. *tortilis* Martyn.—One only, a very beautiful specimen in fine condition.
 O. (*Calpurnus*) *verrucosa* Linné.—Many fine examples of this pretty species.
Cypræa argus Linné.—Many very beautiful specimens, some of large size and with great variety of pattern.
 C. *carneola* Linné.—Common ; variable in size, some being exceptionally large.
 C. *caurica* Linné.—Abundant, but very few specimens in good condition.
 C. *coffea* Gray.—A striking little shell, occurring in considerable numbers.
 C. *exanthema* Linné.—Several, young and adult, of ordinary character.
 C. *interrupta* Gray.—Several, most of them badly worn.
 C. *isabella* Linné.—Abundant.
 C. *mauritiana* Linné.—A great number. Some of the adult shells are very fine. Many specimens are young, in all stages.
 C. *microdon* Gray.—Abundant.
 C. *Rashleighana* Melvill (Pl. II., figs. 7 and 8).—A few specimens of a shell hitherto unique, and considered of uncertain locality. The establishment of the particular habitat of this species is of considerable interest. We

- have thought it worth while re-figuring as the former representations were hardly up to the mark.
- C. scurra** Chemnitz.—Several, rather worn. One good specimen in Archdeacon Anson's collection, and another, very fine, in that of Mr. Cairns.
- C. tabescens** Solander.—Several specimens, showing considerable variation; some are very dwarfed in form, and two are of a pale straw colour without the usual dorsal marking.
- C. talpa** Linné.—Rather common; several specimens unusually brilliant in colour and large-sized.
- C. testudinaria** Linné.—Several very fresh and beautiful specimens.
- C. ursellus** Gmelin.—Common and very fine.
- C. (Aricia) arabica** Linné.—Plentiful in all stages.
- C. (Aricia) annulus** Linné. — Common; some unusually bright in colour.
- C. (Aricia) caput-serpentis** Lamarck.—Common; several very large specimens.
- C. (Aricia) moneta** Linné.—Abundant and variable in size and form.
- C. (Aricia) sulcidentata** Gray.—One young but fine live specimen with teeth not fully developed in Mr. Cairns' collection.
- C. (Luponia) asellus** Linné.—Plentiful.
- C. (Luponia) aurora** Solander = **C. aurantium** Mart. — Mr. Hadfield, in a letter to one of the authors, records coming across a fine specimen of this shell in a native hut, where it was held in much veneration by the occupant, who considered it a kind of fetish.
- C. (Luponia) cernica** Sowerby.—Several.
- C. (Luponia) clandestina** Linné.—Type absent, but the pretty little var. *Artuffeli* Jousseau (Pl. III., figs. 28, 29) is abundant.

- C. (*Luponia*) *cribraria* Linné.—Plentiful.
- C. (*Luponia*) *erosa* Linné—Plentiful.
- C. (*Luponia*) *flaveola* Linné.—Several.
- C. (*Luponia*) *gangrenosa* Dillwyn.—A few.
- C. (*Luponia*) *helvola* Linné.—Common.
- C. (*Luponia*) *lutea* Gronow.—A fine series; many, however, being somewhat waterworn, in which condition they might readily be mistaken for *C. ziczac*. Some of our specimens seem to be var. *Humphreysii* Gray.
- C. (*Luponia*) *lynx* Linné.—Moderately plentiful, but mostly worn.
- C. (*Luponia*) *mappa* Linné.—A number of remarkably fine examples in the most perfect condition, including a handsome specimen of var. *panerythra* Melv. (in Mr. R. Cairns' collection), and several of var. *subsignata* Melv.
- C. (*Luponia*) *poraria* Linné.—Very abundant, some remarkably fine and richly coloured.
- C. (*Luponia*) *poraria* var. *albinella* nov.—Base white; dorsal surface yellow with white ocelli, the purple tinge of the type entirely wanting. A very beautiful and striking colour variety. Two specimens.
- C. (*Luponia*) *spurca* Linné.—A few rather small specimens.
- C. (*Luponia*) *stercus-muscarum* Lamarck.—Several. A form nearly allied to *C. punctata* L.
- C. (*Luponia*) *tigris* Linné.—Many large and beautiful shells. Also some in a juvenile condition.
- C. (*Luponia*) *vitellus* Linné.—Common. Mostly small in size. Two examples of var. *sarcodes* Melv.
- C. (*Luponia*) *ziczac* Gmelin.—Several.
- Trivia *Childreni* Gray.—One fine specimen.
- T. *insecta* Mighels.—Several; variable in size.
- T. *oryza* Lamarck.—Several.
- T. *staphylæa* Linné.—Common.
- T. (*Pustularia*) *nucleus* Linne.—Abundant.

- T. (*Epona*) *cicercula* Linné. — Common; mostly worn.
 Several examples of var. *Lienardi* Jousseau.
- T. (*Epona*) *globulus* Linné.—Common.
- Erato corrugata* Hinds.—Several.

FAMILY *STROMBIDÆ*.

- Strombus thersites* Gray = *S. ponderosus* Phil.—One specimen of this rare species in the finest condition, brought over by the Rev. James Hadfield on his first visit in 1891-2 (now in J. C. Melvill's collection).
- S. urceus* Linné.—Received by J. C. Melvill from Mr. Hadfield's first consignment, 1891. It does not occur in the second or third collections, which is surprising.
- S. (Monodactylus) pacificus* Swainson = *S. novæ-zealandiæ* Chem.—Two fine specimens and several worn ones.
- S. (Canarium) floridus* Lamarck.—Some hundreds of specimens, showing great variation in size and colouration.
- S. (Canarium) gibberulus* Linné.—Abundant.
- S. (Canarium) samar* Chemnitz.—One fine specimen.
- S. (Conomurex) luhuanus* Linné.—Several small specimens.
- Pterocera (Harpago) chiragra* Linné.—Several specimens, chiefly of a stunted form and richly coloured.
- P. (Heptadactylus) lambis* Linné.—One small specimen in the Manchester Museum, and a few mature in that of the Ven. Archdeacon Anson, of Birch Rectory, Rusholme.
- Terebellum subulatum* Linné.—Some hundreds of fine specimens with great variety of marking. The size and beauty of these surpass those we have seen from any other quarter of the tropics.

FAMILY *CERITHIIDÆ*.

- Triforis connatus* Montrouzier.—One of the larger species.
- T. *Hindsii* Deshayes.—Several.
- T. *sculptus* Hinds.—Several.
- T. *violaceus* Quoy.—Of a pale lilac hue, whorls much noded.

Cerithium armatum Phil. var. *lifuensis* nov. (Pl. III., fig. 33). Differs from the type in greater nodulosity of whorls, especially round the sutures, and in more pronounced yet delicate marking and brighter colour. Apparently common in Lifu.

C. carbonarium Phil.—Three or four specimens. Allied to the West Indian *C. atratum* Born.

C. corallinum Sowerby.—One small specimen of this Philippine Island species, received through Mr. R. Cairns.

C. columna Sowerby.—An immense number of specimens, many being fine and thousands in fragmentary condition.

C. dichroum sp. nov. (Pl. II., fig. 5).

C. testa solida, breviter fusiformi, pallidè ochracea, transversim crassistriata, anfractibus octo, irregulariter suprâ suturas nodulosis atque castaneo zonatis, ultimo apud peripheriam alterâ zonâ, nunc tenui, nunc latiore et interdum interrupta succincto, canali paullum producto, apertura ovata, labro simplice.

Long., 8 mill. Lat., 3.50 mill.

Hab., Lifu.

A somewhat shortly fusiform species, the whorls much cemented together, and since they are uniformly transversely striate, it is difficult to descry the sutural juncture. A brown chestnut band, in some specimens broader than in others, encircles the shell just above the sutures, the last whorl also having an additional band round the periphery. Various nodules, somewhat irregularly placed, also encircle the whorls above the sutures.

Several specimens. Near *C. unilineatum* Pease, from the Galapagos Islands.

C. dubium Sow. = **C. eludens** Bayle.—Several in a young state.

C. gracile Pease = **C. rostratum** Sow.—Several.

C. morus Lam. = **C. variegatum** Quoy.—Not so abundant as some of the other tropical forms at Lifu. Mostly young specimens.

- C. nassoides** Sow. = **C. maculosum** Mighels. — A few specimens of this pretty little species.
- C. salebrosum** Sow. — Several, showing much beautiful variation.
- C. zebrum** Kiener. — Described originally from the Galapagos Isles, but we see hardly any difference in the numerous Lifu specimens, including the var. *delectum* Sowb., which is also represented.
- C. (Vertagus) aluco** Linné. — A handsome and infrequent species.
- C. (Vertagus) articulatum** Ads. & Reeve. — Several.
- C. (Vertagus) fasciatum** Bruguière. — A large number of very fine specimens. One good and several poor examples of the form known as *V. martinianus* Pfr.
- C. (Vertagus) lineatum** Lamarck. — Several specimens.
- C. (Vertagus) obeliscus** Bruguière. — Several specimens in poor condition.
- C. (Vertagus) semi-nudum** Sowb. — Several. A form allied to *C. obeliscus* and differing slightly in sculpture.
- C. (Lampania) lacteum** Kiener. — Plentiful.
- C. (Lampania) piperitum** Sowerby — Plentiful.
- C. (Lampania) zonale** Bruguière. — Several.
- C. (Pyrazus) palustre** Linné. — Two specimens in poor condition.
- Bittium** sp. — Several specimens of a form near *B. abruptum* Watson. Probably a new species, but we hesitate at present to describe it as it does not seem to possess many salient characters.
- Potamides caledonicus** Jousse. — One small specimen only.
- Cerithiopsis sinon** Bayle. (Pl. I., fig. 3). — Several specimens of a remarkably beautiful shell, which appears to be so scarce and little known that we give a figure of it. It was originally described as *C. clathratus* Ads., and in the British Museum there are three tablets so named; but Bayle preferred the change on account of this name being pre-occupied by a fossil species.

FAMILY *MODULIDÆ*.

Modulus tectum Gmelin.—Several. A small variety.

FAMILY *PLANAXIDÆ*.

Planaxis virgatus Smith.—Common.

FAMILY *VERMETIDÆ*.

Vermetus (Phylacodes) cf. nodoso-rugosus Lischke.—

Very few specimens, enabling us only to make a guess at the identification. Lischke's species, however, seems the nearest to our form.

FAMILY *TURRITELLIDÆ*.

Mathilda sinensis Fischer. (Pl. III., fig. 27.)—One specimen in J. C. Melvill's collection, received from Mr. Hadfield in 1891. White and umbilicate, very exquisite in sculpture, but only 6 mills. in length.

FAMILY *MELANIDÆ*.

Melania Matheroni Gassies.—Abundant.

M. Rossiteri Gassies.—One or two in Mr. Cairns' collection.

FAMILY *LITTORINIDÆ*.

Littorina obesa Sowerby.—Common.

L. (Melaraphe) mauritiana Lam.—Several specimens; a small form.

L. (Melaraphe) undulata Gray.—Several.

Tectarius miliaris Quoy.—Several.

FAMILY *SOLARIIDÆ*.

Solarium (Philippia) oxytropis A. Adams.—Several, but small. A rare species.

Torinia infundibuliformis Gmelin. — Several, prettily chequered.

T. perspectivunculum Chemnitz.—Two specimens.

FAMILY *LITIOPIDÆ*.

Diala A. Adams is included as a sub-genus of *Litiopa* by Tryon and also Paul Fischer, but we are inclined to agree with

Adams as to the generic distinctness of both this and *Alaba*, also of Arthur Adams.

Three species or perhaps more of this genus appear to occur, but so much difficulty attends the elucidation of the species, and so little is their distribution known, that it is impossible to arrive at any certainty on the subject. The genus, distinct in our opinion from *Litiopa*, as observed above, sadly needs a competent monographer.

D. Hardyi sp. nov. (Pl. II., fig. 10).

D. testa pyramidato-fusiformi, lactea, solida, nitida, anfractibus septem, apud suturas canaliculatis, undique regulariter striato-sulcatis, ultimo apud peripheriam angulato, apertura rotunda labro apud marginem columellarem ochraceo.
Long., 3.25 mill. Lat., 1.15 mill.

A small milk-white species, very regularly striately sulcate, unicolorous and without markings.

D. Hardyi β *prolongata* var. nov. (Pl. II., fig. 11).

Whorls 8, more rounded, shell more elongate, not angled at the periphery.

Long., 4 mill. Lat., 1.15 mill.

Hab., Lifu and Uvea, with the preceding, in shell sand.

These two forms occur together, and are distinct enough when taken notice of at first, but the more one studies them, the more they are seen to be joined by intermediates. The variety seems near *D. suturalis* Adams from the Philippine Isles. We have much pleasure in connecting with this species the name of Mr. John Ray Hardy, of the Manchester Museum, Owens College, who has rendered us much assistance in the sorting and investigation of this Lifu collection of shells.

D. ludens sp. nov. (Pl. II., fig. 9).

D. testa oblonga fusiformi, solida, albescente, anfractibus sex planatis, lævibus, in medio circæque basin ultimi anfractus sulcato-striatis, transversim albo tessellatis, præcipuè juxta suturas, et apud peripheriam, transversimque interruptis lineis brunneis decoratis. Apertura rotunda, labro crassiusculo simplice.

Long., 4 mill. Lat., 1.75 mill.

Hab., Uvea (in shell-sand, from Mr. Hadfield).

Seven or eight specimens, but only one or two in good condition. Allied, though not very nearly, to *D. lauta* Adams, from South Australia, but much smaller and less shining. The compressions at the sutures are not so marked, and the lineation of the brown transverse marking more interrupted and not so broad. The opaque white tessellated ornamentation is not present in *lauta*. *D. albugo* Boog Watson, from Wednesday Island ('Challenger' Expedition) of which there are specimens also in J. C. Melvill's collection from Thursday Island, from shell-sand collected there by Mr. Arnold Umfreville Henn, is also allied, though distinct.

D. semistriata Phil.= *varia* A. Ad.—Rare, and agreeing with authentic specimens from Adams marked '*varia*' in J. C. Melvill's collection.

FAMILY *RISSOIIDÆ*.

Rissoina distans Anton. = **R. canaliculata** Schwartz.—
Two specimens.

R. minuta Neville.—One specimen, like *R. scolopax* or *R. subconcinna*, but only 0·3 millimetres in length, may perhaps be placed here. (It is figured in Kuster's Conch. Cab., pl. xv., fig. 12).

R. scolopax Soubervie.—Many. Evidently common, and very beautiful.

R. (Zebina) curta Adams.—Several.

R. (Zebina) funiculata Soubervie. — Several. Perhaps identical with *R. spiralis* Soubervie, of which we have not seen specimens.

R. (Zebina) subconcinna Soubervie.—Several. Resembling *R. scolopax* Souv.

R. (Moerchiella) spirata Sowb.—Two specimens of the type, and several of
var. **Lamberti** Soubervie,
var. **Orbigny** A. Adams, and
var. **artensis** Montrouzier.—This last a turreted form.

- R. (*Moerchiella*) *spiralis* Souverbie.—One specimen seems to approach *R. artensis* Montrouzier, just mentioned.
- R. (*Pyramidelloides*) *miranda* Adams.—Several. Probably synonymous with *R. insolita* Desh. from the Mauritius. A curiously sculptured and very beautiful species.

Barleeia Chasteri sp. nov. (Pl. III., fig. 22).

B. testa minuta, lævissima, vix pellucente, anfractibus quinque, levibus, ventricosulis, ochraceo-brunneis, infra suturas transversim vitta calcarea succinctis, simul ac apud basin anfractus ultimi, apertura rotunda, pupinæformi, labro fere continuo, incrassato.

Long., 1.75 mill. *Lat.*, 1 mill.

Hab., Lifu (in shell-sand).

Twenty to thirty specimens of this pretty little shell have come under our observation. Some specimens are of a darker ochreous-brown colour, and therefore show the contrast with the chalky white transverse band just below the sutures more distinctly than the paler forms. The whorls are five in number, and the whole shell is extremely smooth, barely translucent; whorls slightly ventricose; operculum unknown.

We think (as pointed out to us by Mr. Edgar Smith) that the genus *Barleeia* fits this species more nearly than any of the other Rissoid sectional genera or sub-genera, although we believe the seas of Europe alone contain nine-tenths, if not all, the hitherto described species of the genus. M. Fischer includes *Fairbankia bombayana* Blanford, however, with *Barleeia*, and it is probable that it is generally diffused over the tropical area—indeed, in Paetel's Catalogue, some Mauritian and Californian species, not known to us, are included likewise.

FAMILY *CYCLOSTOMATIDÆ*.

Omphalotropis granum Pfr.—Common.

FAMILY *TRUNCATELLIDÆ*.

Truncatella conspicua Brown = *T. vitiana* Gld.—Not uncommon.

FAMILY HIPPONYCIDÆ.

- Hipponyx antiquatus** Linné=**H. mitrula** Gmel.—Many, mostly waterworn.
H. australis Linné.—Not uncommon ; one example *in situ* on a specimen of *Turbo petholatus*.
H. barbata Sowerby.—Several.

FAMILY CAPULIDÆ.

- Capulus intortus** Meusch.—Several.
C. militaris Linné.—Several.
Calypttræa hipponiciformis Reeve.—Several, mostly worn.
C. tortrix Reeve.—Several pretty specimens.

FAMILY NATICIDÆ.

- Natica chinensis** Lam.—Common, and in good condition.
N. Gaidei Souverbie=**N. lineozona** Jous.—Plentiful. A very clearly marked and beautiful little shell.
N. Gualteriana Phil.—An imperfect specimen or two.
N. marochiensis Gmelin.—Many specimens of this widely-distributed species, showing some amount of variation.
N. picta Recluz.—Worn, but with the characteristic markings.
N. Robillardi Sowerby.—Allied to *N. gambiæ* Recluz, and hitherto only known from Mauritius. Several fine specimens. We are indebted to Messrs. Edgar A. Smith and E. R. Sykes for aid in determination of this species.
N. violacea Sowerby.—Common.
N. (Ruma) simiæ Chemnitz.—Common.
N. (Ruma) succinoides Reeve=**N. melanostoma** Gmel.—Abundant.
N. (Mamma) aurantia Lam.—Several ; the finest hitherto recorded, in the collections of John Hardy and R. Cairns.
N. (Mamma) mamilla Linné.—Common.
N. (Mamma) orientalis Gmelin.—Common.

FAMILY SCALARIIDÆ.

- Scalaria (Scala) pyramidalis** Sowerby.—One specimen.

- S. (Amaea) fimbriata** Adams (?)—One pretty specimen, which we somewhat doubtfully place here, has been referred to Mr. E. A. Smith, who informs us that it is near to Adams' species, which is unfigured and was described from Japan, but it has fewer ribs, and may be new. We refrain, however, from naming our solitary example until more specimens come to hand for comparison, especially as it is not in first-rate condition.
- S. (Acrilla) gracilis** H. Adams.—Two specimens.

FAMILY *EULIMIDÆ*.

- Eulima proxima** Sowerby.—Two specimens.

FAMILY *PYRAMIDELLIDÆ*.

- Pyramidella mitralis** A. Adams.—Several.
- P. nitida** A. Adams.—Common.
- P. nodicincta** A. Adams.—Several.
- P. variegata** A. Adams.—Abundant.
- Obeliscus dolabratus** A. Adams.—Several.
- O. pulchellus** A. Adams.—Several.
- O. sulcatus** A. Adams.
- O. turritus** A. Adams.—Several.
- Odostomia interstriata** Souverbie.—Two specimens—one white, one yellowish—the number of whorls is not quite as many as in the typical form, of which there are specimens from Upolu in J. C. Melvill's cabinets, but we place the species here with considerable certainty.
- Syrnola brunnea** A. Ad.—Three worn specimens of this interesting form.
- S. Mossiana** sp. nov. (Pl. II., fig. 16).

S. testa attenuata, lævi, nitida, delicatula, anfractibus septem, supra subventricosis, apud suturas pallidè ochraceo-cinctis, ultimo anfractu recto, prolongato, in medio ochraceo-cincto, apice obtuso, aperturâ oblongâ, labro exteriori simplice, columella uniplicata.

Long., 7.50 mill. *Lat.*, 2.25 mill.

Hab., Lifu.

A few specimens only. The shell is smooth, whitish, shining, pyramidal, whorls seven, the upper ones somewhat ventricose, the last whorl straight and produced, with a pale ochraceous median band, this band being also perceptible around the sutures of the upper whorls. The apex is obtuse, outer lip simple, columella with one fold or plait. We have much pleasure in associating with this shell the name of Mr. William Moss, of Ashton-under-Lyne.

FAMILY *HELICINIDÆ*.

Helicina gallina Gassies.—A pretty species. Fairly common.

H. lifouana Crosse.—In great numbers, and very variable. Specimens from Uvea which have been identified as a form of this species, are considerably larger than those received from Lifu.

H. mediana Gassies.—Common and variable.

H. Primeana Gassies.—Common. Several specimens of the carinated variety.

H. sphæroidea Pfr.—Common.

H. sublævigata Pfr.—Common.

Several thousands of the above-mentioned small species of *Helicina* came to hand ; in one or two parcels received from Mr. Hadfield they had apparently been used for packing, the interstices between the larger shells being filled in solid with them. Many of the shells are "dead," and very few retain the operculum.

FAMILY *HYDROCENIDÆ*.

Hydrocena Fischeriana Gassies.—Abundant.

FAMILY *NERITIDÆ*.

Nerita polita Linné.—Several.

N. (Peloronta) aurantia Recluz.—Several.

N. (Peloronta) chrysostoma Recluz.—Common.

N. (Peloronta) filosa Reeve.—Several.

N. (Peloronta) plicata Linné.—Several.

N. (Thelicostyla) albicilla Linné.—Several.

- Nerita* (*Thelicostyla*) *marmorata* Homb.—Common.
Neritina (*Vitta*) *morosa* Gassies.—Common.
N. (*Dostia*) *lifuensis* Ads. & Angas.—Several.
N. (*Clithon*) *nucleola* Morelet.—Common.

FAMILY *NERITOPSIDÆ*.

- Neritopsis radula* Linné.—One fine specimen.

FAMILY *TURBINIDÆ*.

- Turbo petholatus* Linné.—A number of very fine and perfect specimens ; also many young ones.
T. (*Senectus*) *argyrostomus* Linné.—One remarkably fine specimen.
T. (*Senectus*) *artensis* Montrouzier.—Two fine specimens in the collection of the Ven. Archdeacon Anson. Peculiar to the New Caledonian group.
T. (*Senectus*) *chrysostomus* Linné.—Several pretty specimens.
T. (*Senectus*) *moluccensis* Phil.—One of the most interesting examples in the collection. Although we have never seen the type, the description given by Philippi is so lucid, and Sowerby's figure (*Thes. Conch.*, *Turbo*, pl. xiv., fig. 177) so plain that we have had but little difficulty in our identification. The original locality is Amboyna. The shell is a warm yellow, narrowly umbilicate, with polished transverse ribs, the interstices being obscurely crenulate, whorls five in number, and the ribs flecked with red and yellow spotting ; last whorl slightly angled below the sutures, and outer lip tinged with green. In the Manchester Museum collection.
T. (*Senectus*) *nicobaricus* Gmelin.—Abundant.
T. (*Senectus*) *radiatus* Gmelin.—Many, mostly young or worn.
T. (*Senectus*) *sparverius* Gmelin.—Several.
T. (*Senectus*) *spinosus* Chemnitz.—One fine specimen.

FAMILY *TROCHIDÆ*.

- Trochus niloticus* Linné.—One small specimen.

Polydonta conspersa Raff.—Several.

P. histrio Reeve.—Several.

P. tricatenata Reeve.—Two specimens.

P. tubifera Kiener.—Several.

P. obesa Reeve.—Several.

P. (Infundibulum) concava Gmelin.—Two, in the collection of the Ven. Archdeacon Anson, of Birch Rectory, Rusholme, both received from Mr. Hadfield, in 1892.

Pachypoma rhodostoma Lamarck.—Several.

Pyramidea fenestrata Gmelin.—Several.

P. obeliscus Gmelin = **P. pyramis** Born.—Three specimens.

Minolia glaphyrella sp. nov. (Pl. III., fig. 18).

M. testa rotundo-conica, profundè sed angustè umbilicata, solidiuscula, pallidè straminea, apice obtuso, anfractibus quinque, ventricosis, ad suturas impressis, undique transversim arcè liricinctis, liris regularibus microscopicè brunneo-punctatis, continuis, anfractu ultimo apud peripheriam subangulato, obscurè brunneo-maculato, apertura parva, rotunda, labro exteriorè vix incrassato, simplicè, margine columellari parum contracto.

Long., 2·25 mill. *Lat.*, 5 mill.

Hab., Lifu.

A neat little species, very pale straw colour, rather solid, and uniformly delicately transversely lirate; under a lens some very obscure small brown spotted markings on the liræ, and larger spots at the periphery, are observable; umbilicus deep but narrow, mouth small, roundish. This shell seems for the present, at all events, best located in *Minolia* (A. Ad.), where we would also place *M. lifouana* rather than in *Monilea* (Swains.). It is more elaborately sculptured than *M. lifouana*, to which it does not bear more than a passing resemblance.

Minolia lifouana Fischer.—A few of this pretty little shell.

Clanculus clanguloides Wood. — A pretty pink-suffused variety.

C. Thomasi Crosse. — One, not perfect, but exhibiting the peculiar sculpture.

C. unedo A. Adams.—Several.

Elenchus (Thalotia) elongatus Wood.—Several.

G. nucleus Phil.—Common. Not quite typical, but not sufficiently distinct to separate in any way.

Ethalia guamensis Quoy.—Five specimens. The absence of any species of *Umbonium* seems remarkable.

Margarita striatula Phil.—Several specimens which, if not this species, are a close ally. We are indebted to Mr. E. Ruthven Sykes for the identification.

FAMILY *DELPHINULIDÆ*.

Delphinula distorta Linné.—One specimen.

D. laciniata Lamarck.—Two very handsome specimens.

Liotia varicosa Phil.—One or two specimens.

FAMILY *STOMATIDÆ*.

Stomatella haliotidea Sowerby.—Two specimens.

S. maculata Quoy & Gaim.—One specimen.

S. Mariei Crosse.—Two, agreeing exactly with authentic specimens in J. C. Melvill's collection.

S. orbiculata A. Adams.—Several.

S. papyracea Chemnitz.—Several.

S. sulcifera Lamarck.—One small example.

Gena stellata Souverbie.—One fine specimen.

Stomatia decussata A. Adams.—One specimen.

FAMILY *HALIOTIDÆ*.

Haliotis sp.—In the collection of the Ven. Archdeacon Anson. Too imperfect to identify.

H. (Padollus) ovina Chemnitz.—Several small specimens.

FAMILY *ACMÆIDÆ*.

Acmaea crucis Ten-Woods.—One pretty specimen.

A. conoidea Quoy.—Several.

FAMILY *PATELLIDÆ*.

Patella stellaris Reeve.—Several.

P. variegata Reeve.—Several.

CLASS SCAPHOPODA.

FAMILY DENTALIIDÆ.

Dentalium sp.—Three specimens too worn to identify with certainty, but closely allied to *D. politum* L.

CLASS PELECYPODA.

ORDER TETRABRANCHIATA.

FAMILY OSTREIDÆ.

Ostrea crista-galli Linné. — One perfect specimen and several valves of juvenile examples.

FAMILY SPONDYLIDÆ.

Spondylus ocellatus Reeve.—Several valves.

S. pacificus Reeve.—This last we identify with some little doubt, the specimens being in rather poor condition.

FAMILY PECTINIDÆ.

Pecten pallium Linné.—One perfect specimen and several valves of this beautiful species.

P. radula Linné.—Valves only, mostly juvenile.

FAMILY AVICULIDÆ.

Avicula (Meleagrina) margaritifera Linné. — A number of small-sized specimens.

A. (Meleagrina) anomoides Reeve.—Two specimens, one perfect but very juvenile.

Crenatula *cf.* **flammea** Lamarck.—One young example.

Perna *cf.* **linguæformis** Reeve.—One young specimen.

FAMILY MYTILIDÆ.

Mytilus sp.—Several specimens perhaps of *M. subdistortus* Recluz, but too young to identify with certainty.

Septifer pilosus Recluz.—Several perfect specimens.

Modiola tulipa Lamarck.—We cannot make out any difference between our specimens and the Australian and West Indian forms of this species.

Lithodomus gracilis Phil.—Two very fine and perfect examples.

FAMILY *ARCIDÆ*.

Barbatia fusca Brug.—Four perfect specimens and several valves.

Two or three other species of *Arcidæ* are in the collection, but all single valves, and somewhat worn. One comes near *A. japonica* Reeve.

Pectunculus *cf. novo-caledoniensis* Angas.—One large valve and three juvenile examples which seem to be this species.

FAMILY *CARDITIDÆ*.

Mytilocardia muricata Sow.—Many single valves.

M. variegata Brug.—Several valves.

FAMILY *ERYCINIDÆ*.

Kellia fidelium sp. nov. (Pl. III., fig. 30).

K. testa ovato-rotunda, tenui, nitida, lactea, latere postico rotundato, antico compressiusculo, vix subquadrato.

Long., 17 mill. Lat., 13.5 mill.

Hab., Lifu.

A very beautiful milk-white shining species, not unlike some of the *Scintillæ* in form, but more agreeing with the genus *Kellia*, to which we have relegated it. The hinge appears that of a normal *Kellia*. Rare.

FAMILY *TRIDACNIDÆ*.

Tridacna crocea Lamarck.—Two perfect specimens, one of them a juvenile only 20 mills. wide.

FAMILY *CARDIIDÆ*.

Lævicardium australe Sowerby.—Several.

Hemicardium cardissa Linné.—One small specimen.

H. hemicardium Linné.—Several valves.

H. (Fragum) unedo Linné.—Valves only.

FAMILY *CHAMIDÆ*.

Chama foliacea Quoy.—Worn valves only, but showing the distinctive red staining within.

FAMILY *CYPRINIDÆ*.

Libitina angulata Lam.—Several very pretty specimens.

FAMILY VENERIDÆ.

- Caryatis inflata* Sow. = *C. affinis* Gmel.—Several valves.
Lioconcha castrensis Linné.—Several well-marked specimens in various stages of growth.
L. picta Lam.—Two fine specimens.
L. sulcatina Lam.—Valves only.
Chione sp., near *C. cancellata* Chem.—One small example.
C. costellifera Ads. & Reeve.—Several perfect specimens, almost identical with Philippine examples of this species.
C. marica Linné.—Several beautiful specimens.
C. reticulata Linné.—One very fine specimen and some single valves.

FAMILY DONACIDÆ.

- Donax* (*Latona*) *australis* Lam. — One good perfect example and several single valves.

FAMILY PSAMMOBIIDÆ.

- Asaphis deflorata* Linné.—Many fine specimens.

FAMILY LUCINIDÆ.

- Lucina* (*Codakia*) *exasperata* Reeve.—Two perfect specimens and several valves.
L. (Codakia) fibula Reeve. — Many in great variety of color and form, white, salmon-pink, and yellow.
L. (Codakia) interrupta Lam.—One fine perfect specimen received by J. C. Melvill from Mr. Hadfield in 1891; also one in the Anson collection from the same source.
L. (Codakia) punctata Linné.—One perfect and several valves.
Loripes edentulus Linné. — Many imperfect specimens; valves only.
Corbis fimbriata Linné. — Several large and very beautiful specimens.

FAMILY TELLINIDÆ.

- Tellina* (*Tellinella*) *interrupta* Wood.—One specimen.
T. (Tellinella) jubar Hanley = *T. virgata* var.—Two beautiful specimens.

- T. (*Tellinella*) *perna* Speng.—One or two.
 T. (*Tellinella*) *picta* Desh.—Several fine examples.
 T. (*Tellinella*) *rugosa* Born.—Some good specimens, and several single valves.
 T. (*Tellinella*) *virgata* Linné.—Common.
 T. (*Tellinella*) *vulsella* Chemn.—Valves only.
 T. (*Donacilla*) *rhomboides* Quoy & Gaim.—Two perfect specimens and several odd valves. A very pretty form.
 T. (*Acropagia*) *scobinata* Linné.—Two fine examples.
 T. (*Tellinula*) *culter* Hanley.—A few brilliantly-coloured examples, crimson, white, or yellow.
 T. (*Tellinula*) *dispar* Conrad.—One specimen.
Macoma æqualis Deshayes.—A few examples, near *M. suborata* Sow. We fancy the true *M. suborata* also occurs, its head-quarters being New Zealand.

BRACHIOPODA.

FAMILY TEREBRATULIDÆ.

- Terebratella sanguinea* Chem.—Three specimens.



ADDENDA.

Upon again examining the last collection sent over by Mr. Hadfield, we find several species which we regret were not noticed in time to be placed in their proper sequence in the foregoing list. We now append them, and they will serve as a proof, should such be needed, that the resources of these islands are very far from being exhausted, and that any future consignments from this locality would be the means of adding several important, and possibly specifically new additions, to the large number already catalogued.

Rhytida Deplanchesi Gassies.—Several.

R. ouveana Souverbie.—Three specimens.

Planorbis Rossiteri Crosse.—Several.

Conus (Rhizoconus) capitaneus Linné. — One, in very fine condition, with epidermis.

C. (Lithoconus) Gruneri Reeve.—One.

Oliva (Strophona) carneola Lamarck. — Several, showing some variation of banding and colour.

Latirus (Peristernia) Wagneri Ant. = **L. crenulatus** Reeve.—One or two.

Ranella (Lampas) Paulucciana Tapp.-Canefri. — One, a good specimen and very distinctive.

Triton verrucosus Reeve.—One specimen.

T. (Lotorium) sinensis Reeve. — Several.

Cypræa aurora Sol. (p. 112).—Mr. Hadfield, in letter dated July 27, 1894, gives the following additional information: "Mrs. Hadfield has come upon a rare treasure in the shape of a fine orange Cowrie. It is reported among the natives that the old woman who found it was struck on the forehead by a demon, who asked her why she took the shell, a similar one never having been found in those waters. She died from the effects of the blow, so her good pastor tells me."

- Cerithium nodulosum** Bruguière.—One very fine specimen.
- Mitra (Pusia) Montrouzieri** Souverbie.—This little species is more commonly known as *M. tricolor* Montr., a name preoccupied by a Mediterranean species (*M. tricolor* Gmel.).
- Engina pulchra** Reeve.—One, typical and very beautiful.
- Purpura (Thalessa) echinata** Blainville.—Two specimens.
- Pentadactylus (Sistrum) elongatus** Blainville=**cancel-latus** Quoy.—One good specimen showing the characteristic interstitial pitting.

ERRATA.

Page 88, line 18.—“*Plecotrema.*” Since the former part of this paper was put in type, Mr. E. R. Sykes has published (Proc. Mal. Soc., vol. i., pp. 241–299) an exhaustive review of the genus *Plecotrema* H. & A. Adams. In accordance with the law of priority, the two species hitherto known as *P. labrellum* H. & A. Adams and *P. Souverbiei* Montr. must now be termed *P. striatum* Philippi and *P. bellum* H. & A. Adams respectively.

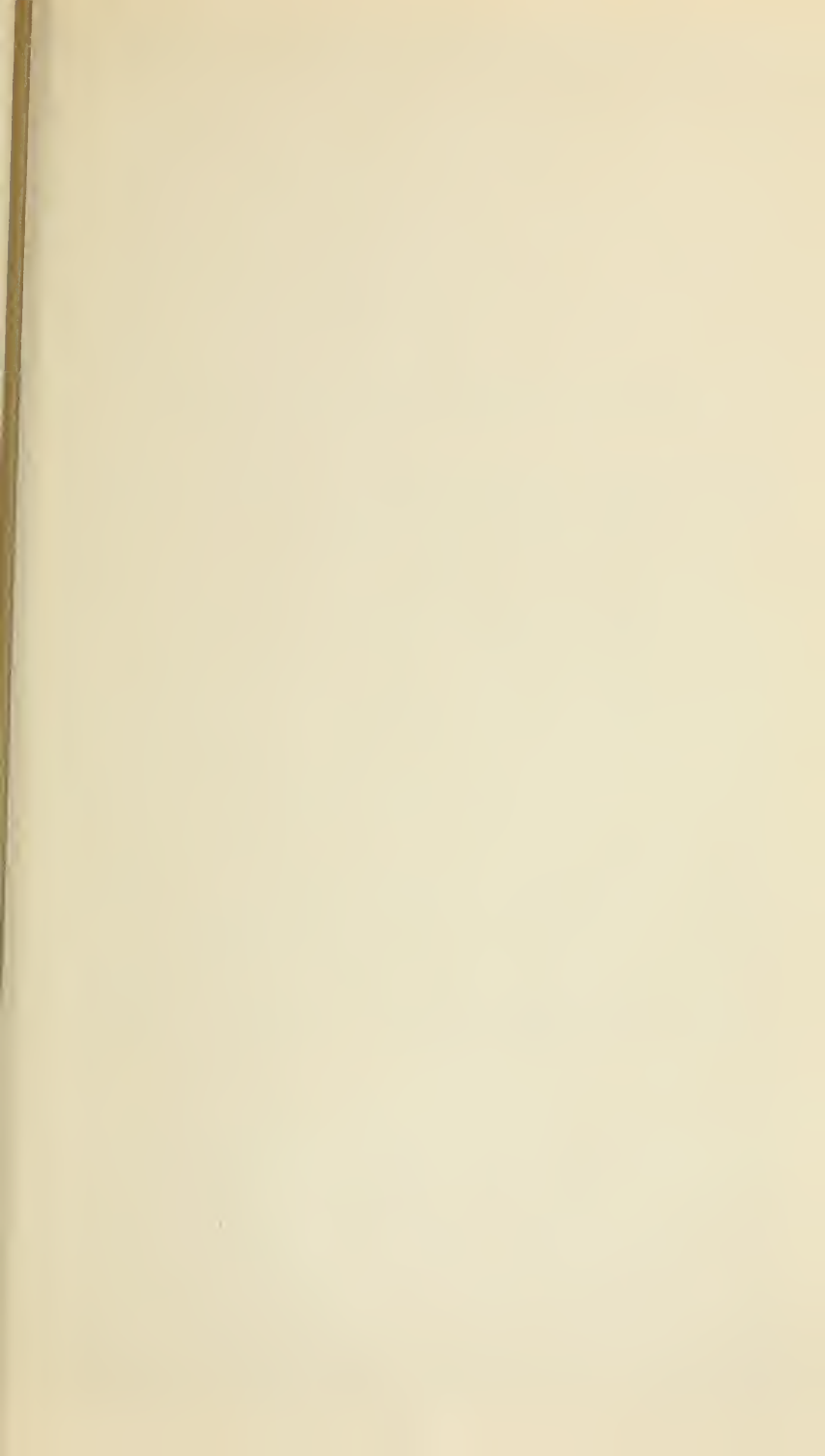
Page 107, line 19.—For “*uricata*” read “*muricata.*”

Page 108, line 25.—For “fig. 12” read “fig. 13.”

Page 116, line 30.—For “plate I.” read “plate II.”

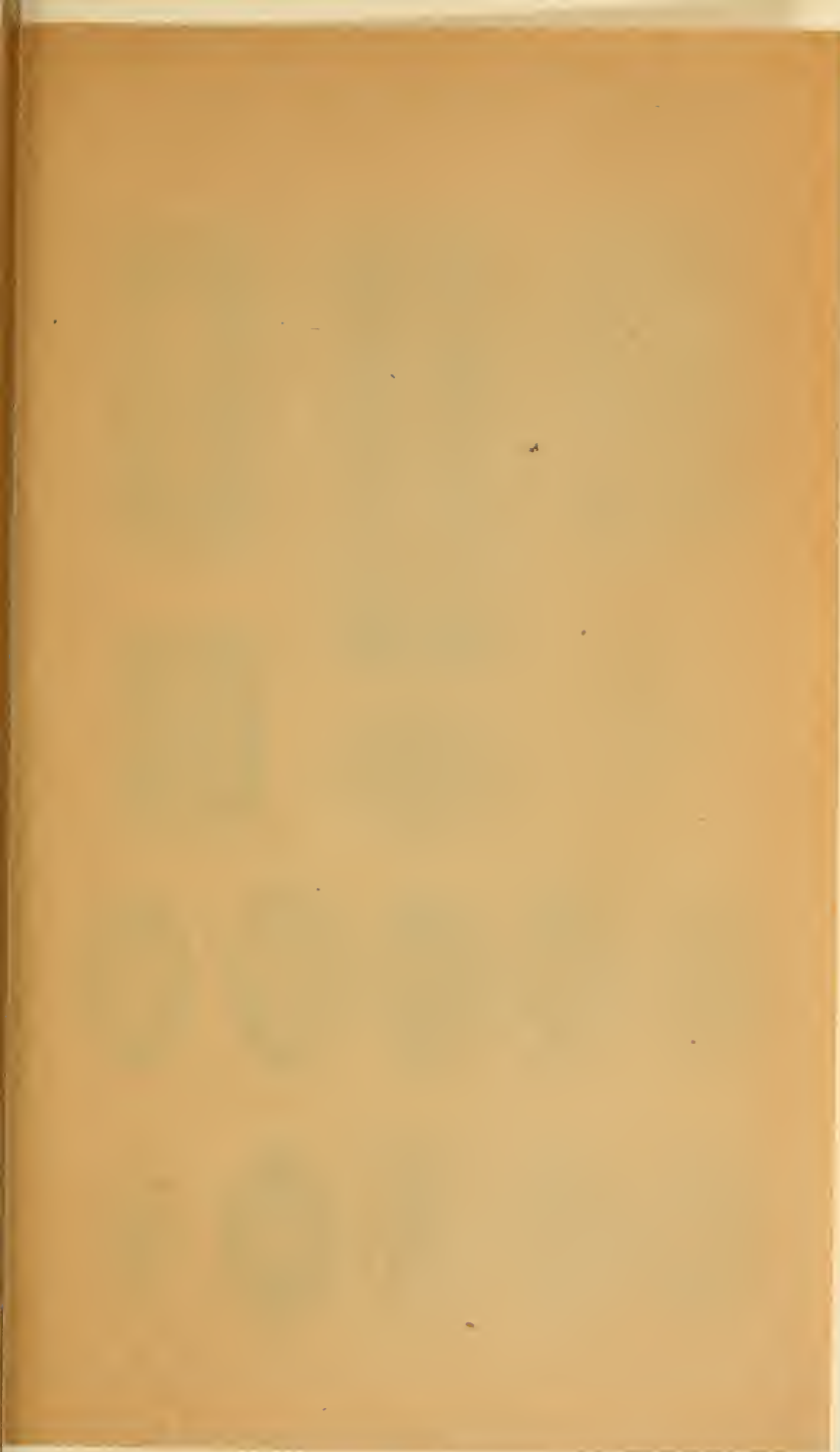
Page 117, line 11.—Delete “(Pl. III., fig. 27).”

Page 119, line 19.—For “0·3” read “3.”



EXPLANATION OF PLATE II.

Fig. 1.	— <i>Haminea Cairnsiana</i> sp. nov.	p. 89
„ 2.	— <i>Terebra (Myurella) nectarea</i> sp. nov.	„ 91
„ 3.	— <i>Cerithiopsis sinon</i> Bayle	„ 116
„ 4.	— <i>Engina satricium</i> Melvill	„ 106
„ 5.	— <i>Cerithium dichroum</i> sp. nov.	„ 115
„ 6.	— <i>Engina mundula</i> sp. nov.	„ 105
„ 7,8.	— <i>Cypræa Rashleighana</i> Melvill	„ 111
„ 9.	— <i>Diala ludens</i> sp. nov.	„ 118
„ 10.	— „ <i>Hardyi</i> sp. nov.	„ 118
„ 11.	— „ „ β <i>prolongata</i> var. nov.	„ 118
„ 12.	— <i>Engina spica</i> sp. nov.	„ 105
„ 13.	— <i>Murex (Ocinebra) benedictus</i> sp. nov.	„ 108
„ 14.	— <i>Mitra (Costellaria) exasperata</i> var. <i>Hadfieldi</i> var. nov.	„ 102
„ 15.	— <i>Mangilia (Glyphostoma) Aliciæ</i> sp. nov.	„ 95
„ 16.	— <i>Syrnola Mossiana</i> sp. nov.	„ 122



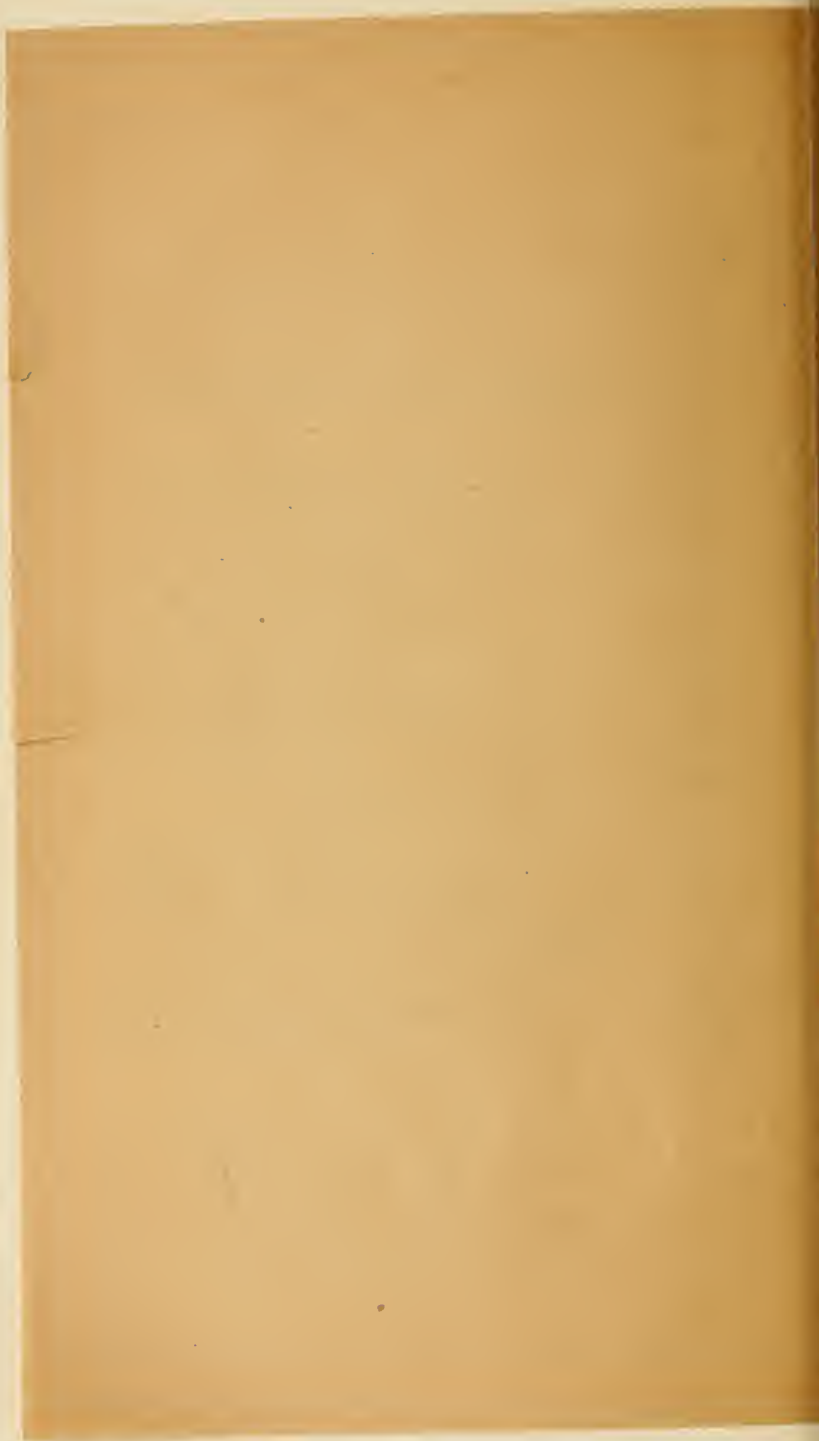


Plate II.



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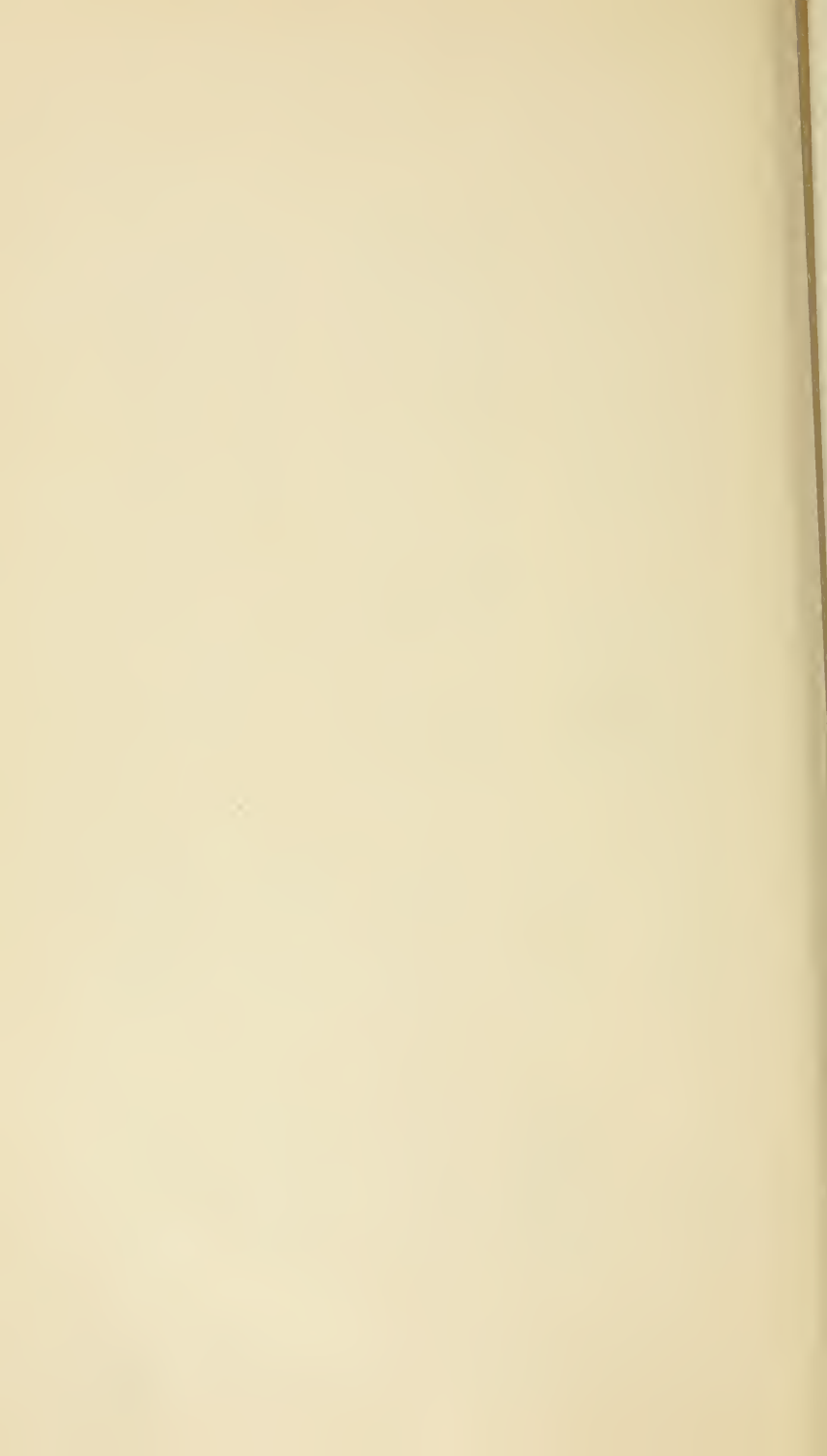
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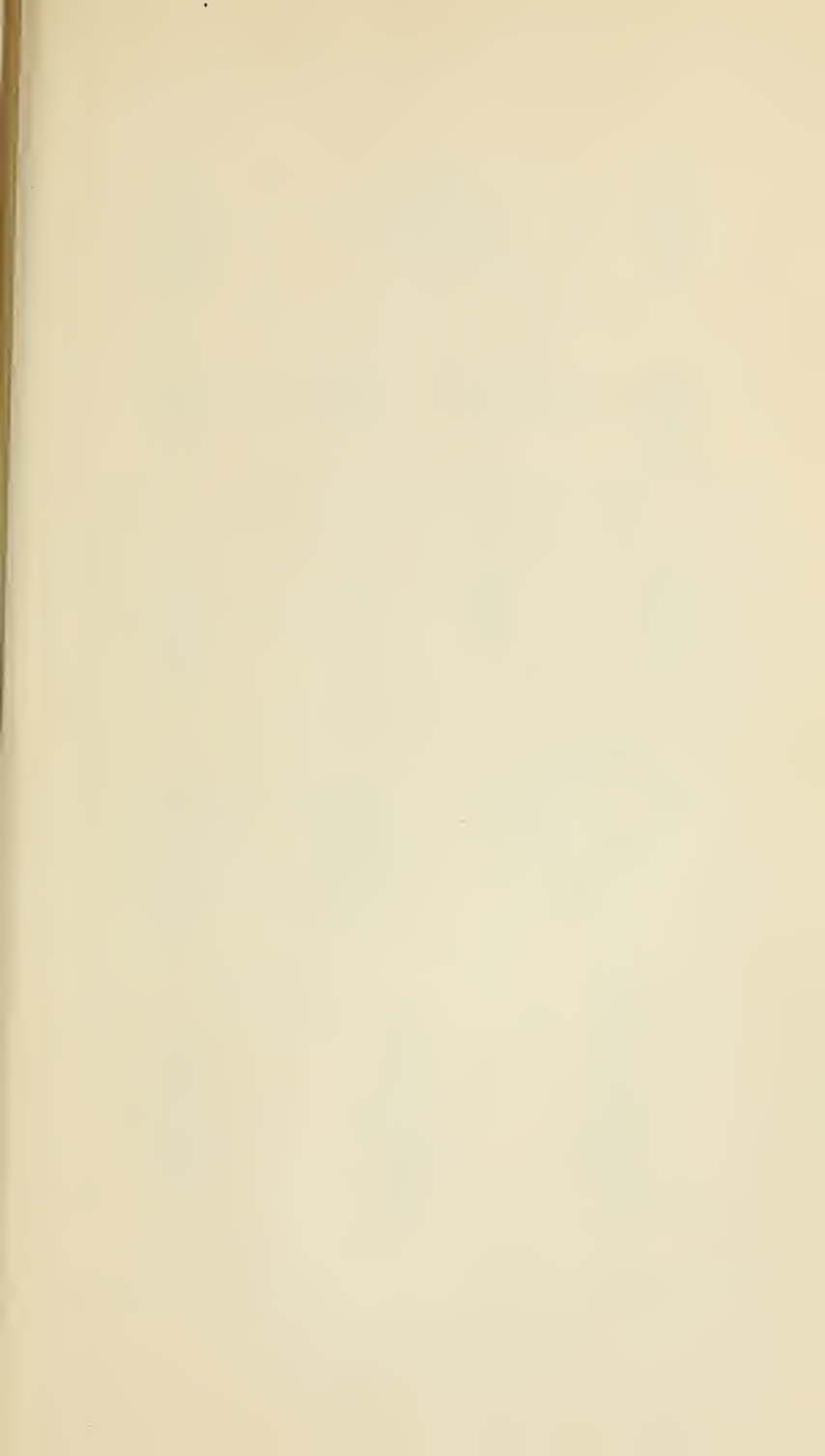


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EXPLANATION OF PLATE III.

Fig.	17.— <i>Mitra (Volutomitra) honesta</i> sp. nov....	p. 101
,,	18.— <i>Minolia glaphyrella</i> sp. nov.	,, 125
,,	19.— <i>Mitra (Costellaria?) nitidissima</i> sp. nov. ...	,, 102
,,	20.— <i>Engina iodosis</i> Duclos... ..	,, 104
,,	21.— <i>Mangilia (Glyphostoma) calcicincta</i> sp. nov.	,, 95
,,	22.— <i>Barleeia Chasteri</i> sp. nov.	,, 120
,,	23.— <i>Pleurotoma (Drillia) Hadfieldi</i> sp. nov. ...	,, 94
,,	24.— <i>Mangilia (Glyphostoma) Emmae</i> sp. nov. ...	,, 96
,,	25.— ,, (<i>Daphnella</i>) <i>dulcinea</i> sp. nov. ...	,, 98
,,	26.— ,, (<i>Glyphostoma</i>) <i>theskela</i> sp. nov. ...	,, 97
,,	27.— <i>Engina sinensis</i> Melvill	,, 106
28, 29.	— <i>Cypræa clandestina</i> Linné var. <i>Artuffeli</i> Jous.	,, 112
,,	30.— <i>Kellia fdelium</i> sp. nov.... ..	,, 128
,,	31.— <i>Mangilia (Glyphostoma) cremonilla</i> sp. nov.	,, 96
,,	32.— <i>Mitra (Chrysame) fulvosulcata</i> Melvill ...	,, 101
,,	33.— <i>Cerithium armatum</i> var. <i>lifuenis</i> var. nov....	,, 115



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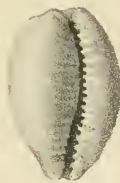
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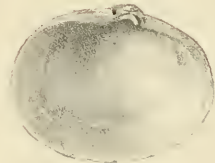
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G.M. Woodward del et lith.

West, Newman imp.



MUSEUM REGULATIONS.

1.—The Museum is open to the public daily, from 11 a.m. to 4 p.m., during the months of November to February; 11 to 5 during March, April, September, October; and 11 to 6 from May to August. Admission free and without ticket.

2.—The Museum and Museum Library are further open to persons desirous to make use of them for the purposes of study. The Keeper will issue tickets of admission on suitable recommendation.

3.—Students of the College are admitted to the Museum on any day in the week between the hours of 10 a.m. and 5 p.m. Those whose studies necessitate access to the specimens and the loan, for use in the Museum buildings only, of the books in the Museum Library, may procure Students' tickets from the Keeper, on the recommendation of the Professors or Lecturers in the several departments, such tickets to be valid only for the session in which they were issued.

4.—The Museum is closed on Ash Wednesday, Good Friday, and Christmas Day.

MUSEUM HANDBOOKS.

The following are ready, and may be had at the Museum or of the Publisher—

MR. J. E. CORNISH,

ST. ANN'S SQUARE,

MANCHESTER.

General Guide to the Museum (<i>Illustrated</i>)	- - -	Price 6d.
Catalogue of the Embryological Models	- - -	Price 1s.
Catalogue of the Type Fossils	- - - - -	Price 2s.
Outline Classification of the Animal Kingdom	- -	Price 2d.
Outline Classification of the Vegetable Kingdom	-	Price 2d.
Catalogue of the Library	- - - - -	Price 2s. 6d.
„ „	(<i>bound in cloth and interleaved</i>)	Price 5s.
Catalogue of the Hadfield Collection of Shells from the Loyalty Islands (<i>with two plates</i>)	- - -	Price 1s.

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