

MOLLUSCA.—By *Edgar A. Smith, F.Z.S., Assistant Zoological Department, British Museum.*

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(Plate LI.)

The following list comprises all the species of mollusca collected at the Island of Rodriguez by Messrs. G. Gulliver and H. H. Slater. The marine shells, with one exception (*Rhizocheilus monodonta*), were obtained by the latter.

They are for the most part very common forms, which are found abundantly in the Indian and Pacific Oceans, on the shores of the Mauritius, Ceylon, Andaman, and Seychelles Islands, Philippines, North Australia, Samoa, Fiji, &c.

The terrestrial and fluviatile molluscan fauna, as might be expected, and as shown by M. Crosse, assimilates most closely to that of the most adjacent land, the Mauritius, Bourbon, Madagascar, and the Seychelles, a few of the species being common to Rodriguez and these localities.

The living terrestrial and fluviatile mollusca hitherto recorded from this island are 25 in number. To these are now added five others, and a species of *Bulimus* which in all probability never lived on Rodriguez, but has been conveyed there by chance, or may have been cast overboard from a ship and washed on shore, where it was picked up I believe, since it was packed up with marine shells collected on the beach.

It will be noticed how few of the species are quoted as Madagascarian; this no doubt simply arises from the fact that this country has been so little investigated in regard to its molluscan fauna.

The whole collection consists of 78 marine species, represented by 260 specimens; 16 terrestrial forms, consisting of 1,149 examples; and six fluviatile species, which include 574 specimens.

The following species not obtained by the Transit of Venus Expedition are mentioned in M. Crosse's paper, entitled "Faune malacologique terrestre et fluviatile de l'île Rodriguez," published in the Journal de Conchyliologie, 1874, Vol. XXII., pp. 221–242:—1. *Pupa (Gonospira) metableta*, Crosse; 2. *Omphalotropis tæniata*, Crosse; 3. *O. littorinula*, Crosse; 4. *Truncatella teres*, Pfeiffer; 5. *Melania commersoni*, Morelet; 6. *Melania tuberculata*, Müller; 7. *Neritina caffra*, Gray; 8. *N. mauritiana*, Morelet; 9. *Streptaxis distortus*, Jonas; 10. *S. piriformis*, Pfeiffer.

## LIST OF THE SPECIES.

## I. MARINE.

	Island of Rodriguez only.	Previously found elsewhere.						
		Mauritius.	Seychelles.	Bourbon.	Madagascar.	Andaman Islands.	Ceylon.	Other Localities.
<i>Conus hebræus</i> , Linn.	-					×	×	Cape of Good Hope, Zanzibar, China Sea, N. Australia, Fiji, Sandwich Islands, Samoa, Society Islands, Aneiteum, Tonga Islands.
„ <i>tessellatus</i> , Born.	-	×			×		×	Mozambique, Red Sea, Philippines, N. Australia, Fiji.
„ <i>catus</i> , Hwass	-	×						Tahiti, Hardy's Island.
„ <i>miles</i> , Linn.	-		×				×	Philippines, Solomon Islands, Fiji.
„ <i>pennaceus</i> , Born.	-	×			×	×		Persian Gulf, Philippines, Moluccas, Sandwich Islands, Tahiti, Society Islands.
„ <i>lividus</i> , Hwass	-	×						Cape of Good Hope, Red Sea, Philippines, Sandwich Islands, Solomon Islands, Fiji, New Caledonia.
„ <i>rattus</i> , Hwass	-		×					N. Australia, Annaa Island.
„ <i>balteatus</i> , Sowerby	-							Philippines.
„ <i>ceylanensis</i> , Hwass	-						×	Red Sea, Sandwich Islands, Lord Hood Island, Niue, Red Sea, Natal.
<i>Sistrum arachnoides</i> , Lamarck			×			×		Lord Hood's Island, Samoa, N. E. Australia, Sandwich Islands.
„ <i>morus</i> , Lamarck	-							Lord Hood's Island, Cape of Good Hope.
„ <i>muticum</i> , Lamarck	-	×						Mozambique.
„ <i>horridum</i> , Lamarck	-					×		Philippines, Port Essington, Society Islands.
<i>Rhizochilus</i> ( <i>Coralliophila</i> ) <i>monodonta</i> , Quoy & Gaimard								Fiji Islands, "Tonga Tabu" ( <i>Quoy</i> ).
<i>Rhizochilus</i> ( <i>Coralliophila</i> ) <i>squamosissimus</i> , sp. nov.	×							
<i>Harpa imperialis</i> , Linn.	-	×						
„ <i>minor</i> , Lamarck	-				×			Red Sea, Mozambique, Philippines, Society, and Navigator's Islands.
<i>Fasciolaria trapezium</i> , Linn.			×			×		Red Sea, Philippines, Solomon Islands.
<i>Latirus polygonus</i> , Gmelin	-		×					Mozambique, Philippines, N. Australia, Tonga Islands.
„ <i>nassatulus</i> , Lamarck						×		Cape of Good Hope, Philippines, Port Essington, Fiji Islands.
<i>Strombus gibberulus</i> , Linn.	-		×			×		Red Sea, Cape of Good Hope, Zanzibar, Philippines, New Guinea, Swan River, Fiji, New Zealand, Society Islands.
„ <i>floridus</i> , Lamarck	-		×			×		Philippines, Society Islands, Sandwich Islands, Red Sea, Cape of Good Hope, Zanzibar.
„ <i>elegans</i> , Sowerby	-							Red Sea, Philippines.
„ <i>samarensis</i> , Chemnitz.						×		Philippines.

	Island of Rodriguez only.	Previously found elsewhere.						Other Localities.
		Mauritius.	Seychelles.	Bourbon.	Madagascar.	Andaman Islands.	Ceylon.	
<i>Pterocera chiragra</i> , Linn. -						×		Timor, Australia, Solomon Islands.
<i>Tritonium cynocephalum</i> , Lamarck.								Philippines.
„ <i>tuberosum</i> , Lamarck						×		Sandwich Islands, Annaa, Fiji.
<i>Cassis vibex</i> , Linn. -								Philippines, Samoa, Pacific Islands,
<i>Cerithium echinatum</i> , Lamarck								Annaa, Society Islands, Cape of Good Hope.
„ ( <i>Vertagus</i> ) <i>asperum</i> , Linn.	×							Red Sea, Mozambique, N. Australia, Fiji, Louisiade Archipelago.
<i>Natica maroccana</i> , var. Chemnitz.								Natal, Mozambique, Red Sea, N. Australia, Philippines, Fiji, Society Islands, W. Africa, W. Indies, California.
<i>N. (Ruma) melanostoma</i> , Lamarck,			×					Red Sea, Mozambique, Philippines, Darnley Island.
„ <i>simia</i> , Chemnitz								Philippines.
<i>Janthina communis</i> ? Lamarck								
<i>Nerita plicata</i> , Linn. -							×	Natal, Mozambique, Zanzibar, Round Island, N. Australia, New Guinea, Fiji.
„ <i>polita</i> , Linn. -	×	×				×	×	Red Sea, Cape of Good Hope, Zanzibar, Philippine Islands, Sandwich and Solomon Islands.
„ <i>albicilla</i> , Linn. -	×	×						Hardy's Island, Zanzibar, Cape of Good Hope, Philippines.
<i>Fenella reticulata</i> , A. Adams								Gulf of Suez, Japan.
<i>Cypræa tigris</i> , Linn. -	×							Mozambique, Samoa, Tongatabu, New Caledonia.
„ <i>arabica</i> , Linn. -			×			×		Natal, Mozambique, Red Sea, N. Australia, Upolu.
„ <i>mappa</i> , Linn. -								Annaa.
„ <i>mauritiana</i> , Linn. -	×					×	×	Navigator's Island, Tongatabu.
„ <i>vitellus</i> , Linn. -			×			×		Fiji Islands, Cape of Good Hope.
„ <i>carneola</i> , Linn. -			×			×		Natal, N. Australia, Fiji, Sandwich Islands.
„ <i>isabella</i> , Linn. -	×	×				×		Sandwich Islands.
„ <i>caput-serpentis</i> , Linn.			×			×		Cape of Good Hope, Mozambique, New Zealand, Tahiti, Savage Island.
„ <i>nucleus</i> , Linn. -								Philippines, Borneo, Savage Island.
„ <i>helvola</i> , Linn. -			×				×	Mozambique, Sandwich Islands, Cape of Good Hope.
„ <i>lamarekii</i> , Gray -								Mozambique.
„ <i>moneta</i> , Linn. -			×					Fiji, Sandwich Islands.
„ <i>annulus</i> , Linn. -			×					Sandwich Islands, Cape of Good Hope.
<i>Dolium perdx</i> , Linn. -						×		Samoa Island, "Florida" ( <i>Green</i> ).
<i>Amalthea acuta</i> , Quoy & Gaimard.								"New Ireland" ( <i>Quoy</i> ), "Natal," <i>Krauss</i> .
<i>Turbo margaritaceus</i> , Linn. -			×					Philippines, Tongatabu.
<i>Trochus (Cardinalia) virgatus</i> , Gmelin.								Red Sea, Philippines.
<i>Trochus (Infundibulum) delicatulus</i> , Philippi.							×	India.

	Island of Rodriguez only.	Previously found elsewhere.					
		Mauritius.	Seychelles.	Bourbon.	Madagascar.	Andaman Islands.	Ceylon.  Other Localities.
<i>Haliotis venusta</i> , Adams & Reeve.	-						Eastern Seas.
<i>Hexabranchus mauritiensis</i> ? Abraham.	-	x					
<i>Bulla ampulla</i> , Linn.	-	x					Red Sea, Philippine Is., Tahiti, Fiji, New Zealand.
<i>Dione lata</i> , Linn.	-					x	Philippines.
<i>Circe pectinata</i> , Linn.	-						Upolu, Australia, Philippine Islands, Red Sea.
" ( <i>Leioconcha</i> ) <i>picta</i> , Lamarck.	-					x	Indian Ocean, China.
<i>Tridacna gigas</i> , Linn.	-						Indian and Pacific Oceans, Philippines.
<i>Lucina fibula</i> , Reeve	-						Red Sea, Philippines, China Sea, Port Essington [West Columbia, <i>Rve.</i> ].
<i>Diplodonta lateralis</i> , sp. nov.	x						
<i>Cardium rugosum</i> , Lamarck - " ( <i>Fulvia</i> ) <i>pulchrum</i> Reeve.	-	x			x		Zanzibar, Nicobar Islands, Australia. China "Cape of Good Hope" ( <i>Jay</i> ).
<i>Lasea australis</i> , Sowerbie	-						"New Caledonia" ( <i>Souverbie</i> ). { Cape of Good Hope ( <i>Krauss</i> ). N. Australia, Solomon Islands, Persian Gulf, Society and Sandwich Islands.
<i>Avicula (margaritifera) margaritifera</i> , Linn.	-					x	
<i>Avicula fusco-purpurea</i> , sp. nov.	x						
<i>Ostrea</i> , sp.	-						
<i>Chama ruppellii</i> , Reeve	-						Red Sea.
<i>Modiola auriculata</i> , Krauss	-						Red Sea, East Africa, Zanzibar.
<i>Mytilus variabilis</i> , Krauss	-						Natal, Zanzibar, Red Sea.
<i>Pinna muricata</i> (Linn.), Reeve.	-						[W. Indies, <i>Rve.</i> ]?
<i>Pecten imbricatus</i> , var. Gmelin.	-						Red Sea.

## II. FLUVIATILE.

<i>Melania scabra</i> (Müller), Reeve.	×	×	×					
<i>Melania rodericensis</i> , sp. nov.	×							
<i>Planorbis rodericensis</i> , Crosse								
<i>Neritina gagates</i> , Lamarck -		×		×				Sumatra.
„ <i>longispina</i> , Recluz -		×						
<i>Navicella porcellana</i> , var., Linn.		×		×	×			Philippine Islands.

## III. TERRESTRIAL.

	Island of Rodriguez only.	Previously found elsewhere.						Other Localities.
		Mauritius.	Seychelles.	Bourbon.	Madagascar.	Andaman Islands.	Ceylon.	
<i>Helix bewsheriana</i> , Morelet -	×							Brazil, Cuba, Natal, Bengal, China, Java, Japan, Sandwich Islands. New Caledonia. India, Siam, Archipelago.
„ <i>rodericensis</i> , Crosse -	×							
„ sp. -								
„ <i>similaris</i> , Férussac -		×	×					
<i>Bulimus fibratus</i> var., Martyn								Brazil, Cuba, Natal, Bengal, China, Java, Japan, Sandwich Islands. New Caledonia. India, Siam, Archipelago.
„ ( <i>Stenogyra</i> ) <i>gracilis</i> , Hutton.								
<i>Pupa lienardiana</i> , Crosse -	×							
„ <i>desmazurei</i> , Crosse -	×							
„ ( <i>Gibbus</i> ) <i>rodericensis</i> , Crosse.	×							Round Island.
<i>Pupa</i> ( <i>Gibbus</i> ), <i>chloris</i> , Crosse	×							
„ ( „ ), <i>palanga</i> , Lesson.		×						
<i>Succinea nevilli</i> , Crosse -		×		×				
<i>Vaginula rodericensis</i> , sp. nov.	×							Round Island.
<i>Cyclostoma articulatum</i> , Gray					×			
„ <i>hæmastoma</i> var. Anton.		×						
<i>Omphalotropis littorinula</i> , Crosse.	×							

## REMARKS ON VARIOUS SPECIES.

*Conus lividus*. Both forms of this species, the coronated (*lividus*) and non-coronated (*C. flavidus* Lamarek), were collected at Rodriguez. Of the former the specimens are strongly tubercled and broad-shouldered, clothed with a brownish olive epidermis and encircled around the lower half of the whorl by about eight nodulous, but only faintly elevated lirations. The latter variety also has similar liræ, and agrees precisely with certain specimens in the British Museum, from the Fiji and Solomon Islands and Port Essington.

*Conus ceylanensis*. The single specimen of this species is in very bad condition, but is interesting on account of its unusually broad form, very similar to that of *C. sponsalis*. It has a purple aperture, and is painted exteriorly with spiral series of reddish dots.

*Conus balteatus*. Plate LI., fig. 12. The shells which I have referred to this species display considerable difference in form from the normal type. They are much shorter and consequently more briefly conical and even somewhat pyriform. The tubercles of the spire are also more remote from one another. The mouth is deep

purple within, and white at the upper and middle parts of the lip. The exterior surface is obscurely two-banded with brown, variegated with a few opaque white dots here and there, and is clothed with a very thin yellowish-olive epidermis.

*Conus rattus*. Plate LI., fig. 11. Of this species, besides two fairly typical specimens, there is a third one in the collection which is a very curious short shell apparently belonging to, although differing considerably from, this species. It is 30 millimeters long, and 18 in breadth and partakes much of the outline of *C. sponsalis*. It also shows considerable affinity to *C. balteatus* and, indeed, it is possible that it may be a variety of it. From this species it differs in having the spire blotched with brown and not wholly white, and it lacks the rosy apex. It is, however, coronated, which is very unusual in *C. rattus*. The body-whorl is broadly two-banded with brown and dotted with opaque white and the aperture is deep purple brown.

*Conus catus*. Plate LI., fig. 13. A single specimen of this species is remarkable on account of its uniformly pink colour.

*Latirus nassatulus*. The pretty example of this species agrees in all respects with the normal form, with the exception of colour being in every part perfectly white.

*Sistrum arachnoides*. The only specimen of this species is a very fine large representative of it. It has fine large bold spines with the interrupted band on the labrum and columella of a rich orange.

*Sistrum horridum*. This shell also, like the specimens of *S. morus*, is thickly coated with lime, and is remarkable for the thickness of the labrum and the development of the teeth, which form an almost uninterrupted series of eight, which are about equal in size, and the four on the columella are also very stout, and the aperture is consequently very narrow.

*Fenella reticulata*. Plate LI., fig. 6. Besides the three lirations which encircle the upper whorls and are nodulous on crossing the longitudinal costæ, which are about 14 in number in each whorl, there is a fourth fine thread-like lira around the upper part which borders the suture and is only slightly nodose. The body-whorl below the four above-mentioned lirations is ornamented with four or five others ("liris numerosis!" Adams' Annals Nat. Hist. 1860, VI., p. 422) which generally are not nodulous like the upper ones, as the longitudinal ribs usually terminate at the fourth lira from the suture. The largest example in the British Museum is from Japan, and has a length of 4 millim, and its last whorl is  $\frac{1}{3}$  broad; aperture 1 long and  $\frac{2}{3}$  wide. Specimens from Suez, the Persian Gulf, and Rodriguez, have invariably rather smaller dimensions than the preceding.

*Janthina communis*? The specimens of this genus from Rodriguez have a rather elevated form, being well represented by the figure 1a in Reeve's Monograph in the Conchologia Iconica, to which he has given the name *J. roseola*, which, it is impossible to say definitely, may or may not be distinct from the common species.

*Amalthea acuta*. The single shell from Rodriguez which appears to be but a variety of this species, differs slightly from the description and figure given by Quoy in the Voyage of the "Astrolabe." It is slightly more elevated and the margin is more or less stained with brown. It is a very stout, solid shell, and coarsely radiately ridged exteriorly, white and stained with reddish-brown, especially towards the apex.

*Natica maroccana*. One specimen which is in a somewhat broken condition agrees almost precisely with others in the Museum from the Red Sea and Sandwich Islands. The sutural wrinkles are well marked. It is of a pale livid grey colour with a white zone beneath the suture and another above the middle of the whorl, the base of which is also white. The aperture is brown banded.

*Strombus elegans*. A curious example of this species was obtained by Mr. Slater. It is a small shell about an inch in length, whitish, with a few brown spottings; the columella is deep red, and the upper and lower parts of the labrum are stained with the same colour. On the last whorl the longitudinal plicæ become very strongly nodulous on the dorsal region, and are not prolonged downwards, and the transverse striation is particularly well defined.

*Strombus floridus*. There are two dwarf specimens of this shell, only ten lines long, having a very thick labrum, and the thick callous of the columella is scarcely striated at all. They are white with only a few brownish markings.

*Pinna muricata*, *Reeve*. The specimens of this species from Rodriguez do not appear to differ in any very material respects from that said to come from the West Indies, and described by Reeve as *muricata* of Linneus. However, there are one or two slight distinguishing characters in them, but not sufficient to separate them specifically. The ribs on the ventral half of the valves which are scale-bearing, do not extend so close to the margin; the dorsal edge is more arcuated and the base is also slightly sinuated and not convex, as in the shell figured by Reeve in the *Conchologia Iconica*, fig. 23.

*Helix rodericensis*. The specimen of this species originally described was not in a perfect condition, as no mention is made of the beautiful epidermis which should adorn it. Two of the best preserved shells collected by Mr. Gulliver display a very pretty brown epidermis, which is thick and almost lamellar, being elevated into close-set oblique shaggy laminae, which have here and there one or two somewhat pointed elevations, which produce the appearance of the whorl being spirally ridged. On the body-whorl there are about seven of these pseudo-ridges, three above and four beneath the periphery, and the oblique riblets or laminae do not extend very far over the lower surface of the whorl. The height of the spire in this species is subject to variation, as some specimens are much more depressed than that depicted in the *Journal de Conchyliologie*, which also is rather a small one. The largest living shell at hand measures  $13\frac{1}{2}$  mill. at its greatest diameter and some of the semi-

fossil specimens which were obtained from the bone-caves are still larger, having a width of 17 mill.

*Helix bewsheriana*. This sub-fossil species was collected by Mr. Slater, in the bone-caves.

*Helix* sp. ? This species is represented in the collection by a single specimen, obtained by Mr. Slater. It is very small, measuring only  $1\frac{1}{2}$  millim. at its greatest diameter, depressed, discoid, and consists of  $3\frac{1}{2}$  whorls which are obliquely, finely lirate. The umbilicus is rather large; aperture lunate circular.

As there is but a single specimen, and that possibly immature, I have not thought it advisable to designate it with a specific name. Several closely allied species inhabit New Zealand and the islands of the Pacific.

*Helix similis*. This almost cosmopolitan shell was "very common" on the island according to the observations of Mr. Gulliver.

*Bulimus fibratus*, var. The presence of this New Caledonian species in the island of Rodriguez is very surprising. Only one specimen was in the collection made by Mr. Slater. It seems impossible that it can be truly indigenous to the island, for, as is well-known, land-shells are very local in their geographical distribution except in a few instances, such as in the case of the preceding ubiquitous species, *H. cellaria* and one or two others. It appears to me therefore, that in all probability this specimen must have been conveyed to Rodriguez Island by human agency, and may have been picked up on the shore, having been thrown overboard from a vessel and washed on to the beach. The specimen varies somewhat from the typical *fibratus* and seems to be a connecting link between it and *B. Souvillei*, Morelet.

*Bulimus* (*Stenogyra*) *gracilis*, Hutton. On comparing the numerous examples from Rodriguez, with Indian specimens of this species, some of them appear to be quite identical. It is a very variable species with regard to the thickness of the spire, and if the two extreme forms be separated from the others they appear to be distinct species; but in a long series of specimens such as that before me, all the intermediate subtle gradations clearly show that they are but variations of one and the same species. *B. (Stenogyra) subula* Pfr. and *oparanus* Pfr. are scarcely separable from this species.

*Cyclostoma articulatum*, Gray. "This species is especially abundant on the Coral-line limestone, the shells, chiefly dead, occurring in vast numbers. The living animals are to be found for the most part on trees"—(*Gulliver*).

The description of *Cy. desmazuresi* given by Crosse (*Journal de Conch.* 1874, XXII., p. 237 pl. VII., f. 12) agrees so exactly with the young stage of *articulatum*, that there can be no doubt that his shells are not a distinct species, but merely immature examples of the present one.

*Cyclostoma hæmastoma*, var. The variety of this species which dwells on Rodriguez has been styled *var. rodriguezensis* by Crosse, who points out the following distinctions. It is "much smaller than the typical form, possessing only four and a half (instead



“ of five) whorls and presenting a smaller number of spiral sulci (12 instead of 14 “ on the penultimate whorl). It occurs everywhere in abundance.”—(*Gulliver*.)

*Omphalotropis hamiliana*. The coloration of this species varies somewhat, the reddish brown colour differing in intensity, and the white band around the periphery sometimes being almost obsolete. The spiral striation will be found to be minutely punctured under the microscope.

*Omphalotropis littorinula*. Crosse is very closely allied to, if not the same as, certain varieties of this species.

#### DESCRIPTIONS OF NEW SPECIES.

##### *Melania rodericensis*.

Plate LI., Figs. 9 and 10.

Annals and Mag. Nat. Hist. 1876, May, p. 404.

Testa subulata, pallide olivacea, strigis longitudinalibus purpureo-fuscis irregulariter picta, et circa basim anfr. ultimi fascia lata coloris saturationis cincta, frequenter corio limoso rubro induta; anfractus 11, convexiusculi, sutura leviter obliqua discreti, liris transversis tenuibus plicisque longitudinalibus supra liras paululum granosis ornati; apertura ovata, superne acuminata; columella arcuata, alba.

Long. 16 mill. diam. 5; apertura long. 5, diam.  $2\frac{1}{2}$ . var. major, long. 23 mill. diam. 7.

Shell small, subulate, thinnish, of a pale olive or yellowish olive colour, ornamented with longitudinal little undulating purplish-brown or red stripes, which frequently stop short of, and do not flow into, the broad dark purplish-brown band encircling the base of the body-whorl; frequently the whole surface of the shell is covered with a reddish earthy deposit; whorls 11 moderately convex, encircled with fine subæqual spiral lirations (9 or 10 on the upper whorls and about 20), which are crossed by slightly oblique longitudinal plications, which are slightly granulous at the points of contact with the transverse ridges and scarcely extend to the suture beneath; they are slightly flexuous, about 17 in number and on the last whorl they become obsolete about the middle. The aperture is ovate and acuminate at the upper extremity, and has much of the tint of the exterior of the shell, the longitudinal flames and the dark basal band being quite distinctly visible; the columella is oblique, not much arched superiorly but more so below at its junction with the outer lip where it is white.

*Variety*. The shell is rather larger, rather more ventricose and has the sculpture less pronounced.

The dark band, encircling the base of the body-whorl, is very constant in all specimens. This species was collected by Mr. Gulliver, both in fresh and brackish water, but appeared most abundant in the latter.

There are several species of *Melania*, which partake very much of the forms of the present species.

*M. fasciolata* of Olivier appears to exhibit the greatest affinity to it. The former is however larger and the sculpture coarser, both as regards the longitudinal ribs and the transverse suleations.

**Vaginula rodericensis.**

Plate LI., Figs. 4 and 4a.

Annals et Mag. Mat. Hist., 1876, May, p. 405.

Corpus elongatum, utrinque rotundatum, postice leviter angustatum et acuminatum, superne rotundatum, lateraliter carinatum, pallium supra et infra minutissime granulatum, testaceum, irregulariter confertim nigro tessellatum, vel punctatum infra paulo pallidius, marginibus lateralibus haud nigro-punctatis; pes augustus latitudinis corporis  $\frac{1}{4}$  adequans, testaceus, usque ad extremitatem corporis fere productus; tentacula oculifera nigrescentia; caput tentaculaque buccalia flavo-testacea; orificium fermeum paulo pone medium corporis situm.

Long, 30 mill., diam. 10 (specim. in alcohol. serv.).

In one or two specimens there is the faintest trace of a mesial dorsal narrow yellowish stripe. *V. maculata* of Templeton from Ceylon appears to be the nearest ally of this species, which is not at all common at Rodriguez according to the observations of Mr. Gulliver.

**Diplodonta lateralis.**

Plate LI., Figs. 7 and 7a.

Annals and Mag. Nat. Hist. 1876, May, p. 405.

Testa alba, transverse globoso-ovata, antice angustata, postice latissime rotundata, valde inæquilateralis; margo dorsalis utrinque paululum declivis et rectiusculus; valvæ tenuiter concentrice striatæ, hic illic fortius; umbones haud prominentes, conspicue excentrici; impressio muscularis antica elongata augustiuscula, postica aliquanto latior.

Long. 18 mill., latit.  $20\frac{1}{2}$ , crass. 11.

Shell pure white, transversely globosely ovate, a little narrowed anteriorly and posteriorly broadly rounded, very inequilateral, equivalved. The dorsal margin sloping on both sides of the umbones, the posterior slope is straight and rather short, the anterior, just a little excavated near the umbo; the valves are concentrically striated, the striæ being very fine with here and there the intervals of growth distinctly marked; the umbones are small and not prominent and very eccentric, the anterior muscular scar is elongate and narrowish, the posterior broader. The linear fossa which holds the exterior hinge ligament is about 5 millim. in length.

*D. coreensis* *Ad. and Ree.* resembles the present species somewhat as regards outline. In that species, however, the umbones are decidedly more central and the anterior dorsal slope is consequently longer. The anterior end of the ventral margin is very faintly angled at its juncture with the anterior lateral margin; but in *D. lateralis* no trace of such an angulation is observable, and it is also a more compressed species than *coreensis*.

Within the valves of the single specimen at hand parallel with the palial impression on the side towards the umbones, there is a second impression, which is punctured with small pits; but probably this is merely an individual peculiarity.

*Avicula fuscopurpurea.*

Plate LI., Figs. 5 and 5a.

Annals and Mag. Nat. Hist. 1876, May, p. 405.

Testa inæquivalvis, perobliqua, postice peroblique alata, striis concentricis confertis regulariter sculpta; color externus fusco-purpureus, antice interdum pallescens; rostrum valvæ dextræ medriocriter breve, paululum declive, confertim rugose lamellosum, valvæ sinistræ angustum, magnum; cauda inconspicua; ala perobliqua, imo recurva, in margine postico valde sinuata; margo valvarum cardinalis rectus; margarita pulcherrime iridescens, a limbo fusco-purpureo, antice pallidiore, posticeque latissimo cincta.

Long. max. 55 mill., diam. 35.

This species is more nearly allied to *A. spadicea* of Dunker (Küster's Conchylien-Cabinet, *Avicula* p. 31, pl. 10 f. 1 and 8) than to any other, however it is more deeply sinuated on the posterior margin.

The obliquity of the shell varies with age, for young specimens do not exhibit nearly so much of a wing as older ones. The colour of the exterior surface is a dark brownish or blackish purple which is of the darkest tint posteriorly, and beneath the rostrums, or on the anterior portion of the valves, it is generally paler.

This is also the case with the inner surface, the anterior part of the limbus surrounding the pearl being of a dirty yellow colour gradually blending into the dark blackish purple tint of the posterior margin.

*A. malleoides*, *Reeve*, agrees somewhat with the present species in form. It is however more oblique and produced, and lacks colouration.

*Rhizochilus (Coralliophila) squamosissimus.*

Plate LI., Figs. 8 and 8a.

Annals and Mag. Nat. Hist. 1876, May, p. 404.

Testa ovato-fusiformis, aliquanto umbilicata, alba; spira elevata, turrita; anfractus 7 convexi, costis spiralibus inæqualibus pulcherrime squamatis, irregulariter alternatim majoribus cincti, et plicis longitudinalibus obliquis clathrati; anfr.

ultimus costis spiralibus circiter 26 ornatus, ventricosus, inferne angustatus; apertura ovato-pyriformis, alba, longitudinis totius  $\frac{3}{5}$  vix æquans; labrum margine crenulato; columella alba, callo lævi induta; canalis angustus, obliquus, leviter recurvus.

Long. 31 mill., diam 16; apertura long. 19, diam. 9.

Shell ovately fusiform, narrowly umbilicated, entirely white; spire elevated, turrit, with the converging outlines almost rectilinear; whorls 7 convex, gradually increasing, encircled by numerous beautifully and very closely imbricated lirations which are more or less regularly alternately stouter and finer and are about 12 in number on the penultimate whorl and about twice that number on the last. The whorls are also ornamented with obliquely longitudinal costations or plications, which are more conspicuous and closer together on the upper whorls than on the ultimate; they number about 12 on the penultimate and the same on the last whorl; the latter is ventricose above and narrowed inferiorly; aperture white, ovately pear-shaped, scarcely equalling  $\frac{3}{5}$  of the whole length of the shell; the outer lip is crenulated on the edge; columella covered with a thin white callosity, only slightly arcuate in the middle; canal oblique, rather narrow and a little recurved.

*Fusus inflatus*, Dunker, in Philippi's *Abbildungen neuer Conchylien*, pl. iv., f. 2, must be allied to this species, but the sculpture and proportion of the aperture to the shell is very different. Perhaps *R. exaratus*, of Pease, which is found in the Sandwich Islands, has more the form of this species than any other in the genus. It is, however, at once distinguishable on account of its very distinct sculpture.

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#### EXPLANATION OF PLATE LI.

(Figs. 4 to 13—Mollusca.)

- Fig. 4. *Vaginula rodericensis*, dorsal view.  
 „ 4a. „ „ ventral surface.  
 „ 4b. „ „ orificium femineum.  
 „ 5. *Avicula fusco-purpurea*, upper side.  
 „ 5a. „ „ interior of the same valve.  
 „ 6. *Fenella reticulata* (much enlarged).  
 „ 7-7a. *Diplodonta lateralis*.  
 „ 8. *Rhizochilus* (*Coralliophila*) *squamosissimus*.  
 „ 8a. „ „ portion of the surface magnified.  
 „ 9. *Melania rodericensis*.  
 „ 10. „ „ var.  
 „ 11. *Conus rattus*, var.  
 „ 12. „ *balteatus*, var.  
 „ 13. „ *catus*, var.
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