

6. *GLANDINA ARCUATA*, Pfr. *Gland. testâ fusiformi-turritâ, tenuiusculâ, nitidâ, subarcuatim et confertim costulatâ, succineo-flavidâ, strigis angustis, remotis, arcuatis, rufis, pallidè marginatis ornatâ; spirâ subulatâ, acutâ; suturâ crenulatâ; anfractibus 9 planis, ultimo $\frac{1}{3}$ longitudinis subæquante; columellâ strictiusculâ, breviter truncatâ; aperturâ oblongâ; peristomate simplice.*
Long. 13, diam. $3\frac{1}{2}$ mill.

7. *ACHATINA ADAMSII*, Pfr. (*Bul. costulatus*, Adams). *Ach. testâ fusiformi-turritâ, longitudinaliter distinctè costatâ, inter costas basi anfractûs ultimi evanescentes subtilissimè striatâ, corneâ, strigis rufis irregulariter ornatâ; spirâ turritâ, apice acuto; anfractibus 8 convexis, ultimo $\frac{1}{3}$ longitudinis subæquante; columellâ subrectâ, basi obliquè truncatâ; aperturâ subrhombèd.*
Long. 7, diam. $2\frac{1}{2}$ mill.

8. *ACHATINA GOSSEI*, Pfr. *Ach. testâ subulatâ, tenui, diaphanâ, cereâ, remotè costatâ, inter costas in anfractibus ultimis deorsum obsolescentes subtilissimè striatâ; anfractibus 9—10 convexiusculis, ultimo $\frac{1}{4}$ longitudinis vix superante; columellâ obliquâ, basin aperturæ attingente, breviter truncatâ; aperturâ angustâ, oblongâ; peristomate simplice, margine dextro deorsum dilatato.*
Long. 12, diam. $2\frac{2}{3}$ mill.

9. *ACHATINA ABERRANS*, Pfr. *Ach. testâ subulatâ, tenui, nitidâ, lineis impressis longitudinalibus, regulariter distantibus notatâ, pallidè succineâ, strigis rufulis, angustis, obliquis, sparsis ornatâ; spirâ subulatâ, apice acutiusculo; suturâ leviter crenulatâ; anfractibus 7 planiusculis, ultimo $\frac{1}{3}$ longitudinis æquante; columellâ callosâ, torto-subtruncatâ; aperturâ oblongâ; peristomate simplice.*
Long. 7, diam. 2 mill.

This species belongs to a peculiar aberrant group of the genus *Achatina*, of which the type seems to be *Ach. columnaris*. The columella is not exactly truncated, but rather contorted, and forms a prominent angle, which appears similar to the truncated columella of the true *Achatinas*. To this same group may be referred another very distinct and beautiful species, collected by Mr. Lattre in Central America, and making, like all formerly described species, part of the rich collection of Mr. Cuming.

10. *ACHATINA LATTREI*, Pfr. *Ach. testâ glandiformi, lævissimâ, nitidâ, fulvâ, strigis castaneis leviter arcuatis irregulariter ornatâ; spirâ brevi, conoidèd, acutiusculâ; anfractibus 7 planis, ultimo $\frac{3}{4}$ longitudinis ferè æquante; columellâ callosâ, contortâ, extus subtruncatâ; aperturâ angustissimâ, basi dilatatâ; peristomate simplice, obtuso, margine dextro antrorsum leviter arcuato.*
Long. 38, diam. 14 mill.

Feb. 46
A paper by Dr. Philippi was then read, containing "Descriptions of a new species of *Trochus*, and of eighteen new species of *Littorina*, in the collection of H. Cuming, Esq." :—

TROCHUS CUMINGII. *Tr. testâ latè conicâ, umbilicatâ, acutâ, car-*

neo-cinerea; anfractibus convexiusculis, transversè striatis, et serie triplici spinularum ornatis; spinis supremis solidis compressis, medianis fornicatis majoribus, infimis fornicatis confertissimis; aperturâ suborbiculari, violacescente; margine umbilici acuto, prominente.

Altit. 8, diam. 8, altit. aperturæ $4\frac{3}{4}$ lin.

Hab. Guimaras, insula Philippinarum.

This very interesting species was found on rocks at high water-mark; its operculum is orbicular, horny, and consists of 5-6 volutions.

1. LITTORINA LEMNISCATA. *Lit. testâ parvâ, ovato-oblongâ, nigrâ, striis transversis et lineâ triplici, elevatâ, moniliformi sculptâ; anfractibus planiusculis; basi nodulosâ; aperturâ spiram non æquante, nigrâ, basi albo-fasciatâ; columellâ depressâ, basi subeffusâ.*

Altit. $4\frac{1}{2}$, diam. 3, altit. aperturæ $2\frac{1}{2}$ lin.

Hab. Cuba?

2. LITTORINA ASPERA. *Lit. testâ oblongâ, acutâ, crassâ, fuscescente, lineis nigricantibus longitudinalibus obliquis pictâ, ad basin subangulatâ; anfractibus parùm convexis, liris elevatis transversis sculptis; aperturâ ovatâ, fuscâ, fasciis duabus albidis; labro intus albido, fusco-punctato.*

Altit. 8, diam. $5\frac{1}{2}$, altit. aperturæ $4\frac{1}{2}$ lin.

Hab. Ad oram occidentalem Americæ borealis (from Sitka, New Albion, found on rocks at low water by Mr. Barclay; from Mexico, found by Hegewisch; from Conchagua, province of San Salvador, Central America, Cuming). By the character of its aperture, this species belongs to the group of *L. ziczac*, *L. zebra* (*Phasianella peruviana*, Lamarck), and is easily distinguished from all allied species by its sculpture.

3. LITTORINA PICTA. *Lit. testâ parvâ, ovatâ, acutâ, basi obscure angulatâ, transversim striatâ; fasciâ ad partem superiorem anfractuum, aliâque ad basin albis, lineis fuscis longitudinalibus pictis; aperturâ semiorbiculari, fuscâ, basi albo-fasciatâ; columellâ satis compressâ ferè rectilineâ.*

Altit. 4, diam. 3, altit. aperturæ $2\frac{1}{2}$ lin.

Hab. ad insulas Sandwich.

Var. β . *Anfractibus supernè angulatis, parte medianâ anfractûs ultimi albido-marmoratâ.*

This species has nearly the shape and size of *L. Basteroti* (*Turbo petræus*, *Turbo cærulescens*, etc.), which I believe the true *Turbo neritoides* of Linnæus, and the colouring of the interrupted variety of *L. ziczac*.

4. LITTORINA PORCATA. *Lit. testâ parvâ, ovatâ, obtusiusculâ, umbilicatâ, è cærulescente-albidâ, lineis elevatis distantibus porcatâ; aperturâ magnâ, ovatâ, semiorbiculatâ; faucibus fuscis, albo-bifasciatis; limbo labri albo.*

Altit. 3, diam. $2\frac{1}{2}$, altit. aperturæ 2 lin.

Hab. ad insulas Gallapagos (on high exposed rocks); Cuming.

5. *LITTORINA SITKANA*. *Lit. testâ transversim ovatâ, obtusiusculâ, castaneâ, transversim grossè sulcatâ; anfractibus rotundatis, ultimo dilatato; aperturâ ovatâ, patulâ; columellâ albâ, vix dilatâ, sulco umbilicari exaratâ.*

Altit. 6, diam. 6, altit. aperturæ $4\frac{1}{2}$.

Hab. ad Sitka, Nova Albion (on rocks, half-tide); collected by Mr. Barclay.

Very nearly allied to *L. groenlandica*, but more depressed, blunt, the aperture more dilated. The elevated transverse lines are three in number on the upper volutions, about twelve on the last.

6. *LITTORINA GLABRATA*. *Lit. testâ ovato-oblongâ, acutâ, albido-carnedâ, strigis pallidè fuscis obliquis pictâ; anfractibus parùm convexis, lævibus, supremis sub lente lineis impressis 6-8 exaratis, ultimo basi angulato; aperturâ ovatâ, rufâ; columellâ depressâ, violaceâ.*

Altit. $8\frac{1}{2}$, diam. 6, altit. aperturæ $4\frac{1}{2}$ -5 lin.

Hab. ad Payta Peru (on rocks, half-tide); Cuming. Ad Caput Natale (Wahlberg).

Perhaps only a variety of *L. obesa*, Sow., though easily distinguished by the pale oblique longitudinal lines: very like *L. ziczac*, D'Orb. (non Chemn.)

7. *LITTORINA LÆVIS*. *Lit. testâ ovato-oblongâ, acutâ, albiddâ, cinereo-marmoratâ; anfractibus parùm convexis, lævissimis (sub lente fortiori vix tenuissimè striatis); ultimo basi obscure angulato; aperturâ ovatâ, fusco-violaceâ, basi albido-fasciatâ; columellâ depressâ, violaceâ.*

Altit. $8\frac{1}{2}$, diam. 6, altit. aperturæ 5 lin.

Hab. Unknown.

This species scarcely differs, except in colouring, from *L. obesa*.

8. *LITTORINA DEBILIS*. *Lit. testâ parvâ, ovato-oblongâ, acutâ, tenui, cærulescente-albiddâ, interdum lineis obliquis pallidissimè fuscis pictâ, apice obscuro; anfractibus læviusculis (sub lente lineis confertis impressis sculptis), ultimo basi angulato; aperturâ ovato-oblongâ, rufâ, basi productâ et subangulatâ; columellâ parùm depressâ, fuscescente.*

Altit. $4\frac{1}{2}$, diam. 3, altit. aperturæ $2\frac{1}{2}$ lin.

Hab. Unknown.

A *L. glabrata* in miniature; it differs however essentially from that species by its aperture, which is produced into a distinct angle at the base.

9. *LITTORINA SAYI*. *Lit. testâ ovato-oblongâ, acutâ, solidiusculâ, transversim multisulcatâ, albâ, punctis pallidè rufis ornatâ; spirâ violacescente; anfractibus convexiusculis, suturâ profundâ divisis; aperturâ ovato-orbiculari; columellâ rufâ; labro intus albo.*

Altit. 9, diam. $6\frac{1}{2}$, altit. aperturæ 5 lin.

Hab. ad Floridam (communicated by Say).

Very nearly allied to *L. irrorata*, but thinner, more slender, the aperture not narrowed, nor the outer lip mottled within.

10. LITTORINA MODESTA. *Lit. testâ ovato-oblongâ, acutâ, tenuiusculâ, albidâ, aut obsolete rufo-punctatâ, profundè transversim sulcatâ; anfractibus convexiusculis, suturâ profundâ divisâ, ultimo haud carinato; aperturâ semiorbiculari, luteâ vel fusco infuscatâ; columellâ ferè rectilinéâ, dilatatâ, depressâ, infuscatâ; anfractu ultimo ad columellam eroso.*

Altit. 8, diam. 6, altit. aperturæ 5 lin.

Hab. ad Sitka, Nova Albion (on rocks, half-tide), Mr. Barclay; ad insulam Mauritii, Capt. Caldwell.

This species has the sculpture of *L. aspera*, the shape and colour of *L. Sayi*.

11. LITTORINA INTERMEDIA. *Lit. testâ oblongo-conicâ, basi ventricosâ, tenui, varii coloris, lineis impressis circa 8 in anfractu penultimo exarâtâ, lævi; anfractibus convexis, ultimo rotundato haud carinato; aperturâ ovatâ; columellâ albâ vel violaceâ, foveâ exarâtâ.*

Altit. 10, diam. $7\frac{1}{2}$, altit. aperturæ $5\frac{1}{2}$ lin. et minor.

Hab. Mare Rubrum, ad oram Natal; Swan Point, in Novâ Hollandiâ boreali; Jimamailan, in insula Negrorum; Tahiti; insula Elisabeth in Oceano Pacifico (Cuming).

This species is intermediate between *L. scabra* (*Helix scabra*, L. not auct.) and *L. angulifera*, Lamk., not Quoy and Gaim.; it has the shape and colouring of the latter, which is easily known by its very numerous impressed spiral lines. With *L. scabra* it agrees in the number of the impressed lines, but differs by its smoothness to feeling and by the absence of the basal keel. This latter character distinguishes it from *L. luteola*, Q. et G., a species which, however, I have not seen in nature. It is very variable in colouring, and we may distinguish principally the following varieties:—

1. punctata, testâ lutescente aut rufescente, lineis transversis fuscis irregulariter interruptis punctatâ.
2. articulata, testâ interstitiis sulcorum regulariter albido et fusco articulatis. (From Swan Point; only 6 lin. high.)
3. strigata, testâ in fundo flavescente strigis latis, irregularibus nigris ornatâ. (From Jimamailan; only 6 lin. high.)

12. LITTORINA CONICA. *Lit. testâ tenuissimâ, oblongâ, exactè conicâ, basi carinatâ, confertim et obsolete transversim striatâ, albidâ, unicolore vel fusco pictâ; aperturâ ovatâ, perobliquâ; columellâ basi rectâ, excavatâ.*

Altit. 10, diam. $7\frac{1}{2}$, altit. aperturæ 6 lin.

Hab. Insula Java.

13. LITTORINA TENUIS. *Lit. testâ ovato-oblongâ, acutâ, tenuissimâ, tenuissimè transversim striatâ, carneo-albidâ, lineis angulatis rufis pallidissimis pictâ; suturâ sæpius infuscatâ; anfractibus planius-*

culis, ultimo basi rotundato, minimè angulato; aperturâ ovatâ, concolore; columellâ arcuatâ, vix compressâ.

Altit. 7, diam. $4\frac{2}{3}$, altit. aperturæ $3\frac{2}{3}$.

Hab. Insula Ticao, Philippinarum (on rocks, high water; Cuming).

14. LITTORINA PALLESCENS. *Lit. testâ oblongâ, subturritâ, solidâ, albâ; anfractibus convexiusculis, superioribus lineis impressis novem, ultimis lineis elevatis obtusis (circa quatuor in anfractu penultimo) sculptis; aperturâ patulâ, semiorbiculari; columellâ brevi, compressâ.*

Altit. 10, diam. 7, altit. aperturæ $5\frac{1}{2}$ lin.

Hab. Insula Mindanao (Cagayan, province of Misamis, found on mangrove-trees; Cuming).

This species differs from *L. filosa*, Sow., in being much more solid, in its broader and blunter elevated transverse lines and broad compressed columella.

15. LITTORINA SIEBOLDII. *Lit. testâ oblongâ, subturritâ, tenuiusculâ, flavescente, subunicolore; anfractibus convexiusculis, supremis lineis impressis, inferioribus lineis elevatis confertis, acutiusculis (circa 9 in anfractu penultimo) sculptis; aperturâ patulâ, semiorbiculari; columellâ compressâ, subcanaliculatâ, albâ.*

Altit. 13, diam. 8, altit. aperturæ 7 lin.

Hab. Japonia, Siebold.

Perhaps only a variety of *L. scabra*, from which it differs almost only in its high raised transverse ridges and very obscurely angulated base.

16. LITTORINA CINGULATA. *Lit. testâ oblongâ, acutâ, tenui, pallidè grised, apice obscuro; anfractibus convexiusculis, suturâ profundâ divisis, sulcatis; ultimis cingulis elevatis croceis ornatis; basi haud carinatâ; aperturâ ovatâ, patulâ; columellâ arcuatâ, albâ, haud compressâ; faucibus albis, rufo-lineatis.*

Altit. 9, diam. $6\frac{1}{2}$, altit. aperturæ $4\frac{1}{2}$ lin.

Hab. Ad oram borealem Novæ Hollandiæ (found on the mangrove-trees by I. E. Dring, Esq.).

17. LITTORINA SULCULOSA. *Lit. testâ oblongâ, acutâ, tenui, flavescente, fasciis transversis pallidè fuscis pictâ; anfractibus convexiusculis, suturâ profundâ divisis et sulcis 3-4 exaratis; ultimo subangulato; aperturâ semiorbiculari, albâ; faucibus fusco-fasciatis; columellâ parùm arcuatâ, compressiusculâ.*

Altit. $8\frac{1}{2}$, diam. $5\frac{1}{4}$, altit. aperturæ $4\frac{1}{2}$ lin.

Hab. in orâ boreali Novæ Hollandiæ (found on the mangrove-trees by I. E. Dring, Esq.).

The sculpture of this species is exactly like that of *Trochus rostratus*, Gm.

18. LITTORINA? ABERRANS. *Lit. testâ elongatâ, subturritâ, subperforatâ, tenui, obsoletè striatâ, albâ; anfractibus rotundatis, suturâ profundâ divisis, ultimo ventricosus; aperturâ patulâ, orbi-*

culari-ovata, intus nigro-marginata; columella brevi, tereti, extus reflexa.

Altit. 8, diam. 5, altit. aperturæ $3\frac{3}{4}$ lin.

Hab. Panama (found on the rocks, half-tide, Cuming).

This species differs by its aperture so much from the other species of *Littorina*, and so nearly resembles a *Bulimus*, that I am very doubtful whether it be placed in its right genus.

December 23, 1845.

No Meeting was held.